

**FEDERAL BUREAU OF INVESTIGATION**  
**FREEDOM OF INFORMATION/PRIVACY ACTS SECTION**  
**COVER SHEET**

**SUBJECT: TWA FLIGHT 800**

**FORENSIC ANALYSIS**

# FEDERAL BUREAU OF INVESTIGATION

**Precedence:** ROUTINE

**Date:** 12/10/1996

**To:** FBIHQ LABORATORY DIVISION -- **Attn:**

Section Chief,  
Randall S. Murch,  
Laboratory Division;  
SSA [REDACTED]  
Explosive Unit;  
SSA [REDACTED]  
NSD, RFU

b7c

**From:** New York  
Squad I-46

**Approved By:** [REDACTED]

**Drafted By:** [REDACTED] lca

b7c

**Case ID #:** 265A-NY-259028 (Pending)

**Title:** UNSUBS;  
EXPLOSION OF FLIGHT TWA 800;  
AOT-IT;  
EOD; OO: NY

(X)  
TC

**Synopsis:** Outstanding FBI HQ Laboratory Reports

**Administrative:** All persons interviewed were furnished the appropriate provisions of the Privacy Act. Express promises of confidentiality have not been granted.

FBIHQ, Laboratory Division is requested to advise results of these requests. Captioned investigation requires an on going dialogue with the National Transportation Safety Bureau (NTSB). NTSB has and continues to request these results on a timely basis. Any and all results should be directed to Supervisory Special Agents [REDACTED]-46, TWA Special) and [REDACTED] Calverton, Long Island Command Post.

b7c

New York Office appreciates and recognizes that these laboratory requests be fully and thoroughly addressed in support of this on going investigation.

**Details:** The following are synopses of communications requesting examinations on items sent to the FBIHQ Laboratory. As of the date of this communication, New York Office has not received the resulting Laboratory Reports.

Lab Receipt dated 7/25/96, recognizes receipt of Q9 - one (1) strip of color 35mm (Fuji G-400) negatives (4 negatives exposed 1A-4A).

Electronic Communication dated 7/27/96, drafted by SA

4-11-00 SP/ [REDACTED]  
912069

To: FBIHQ LABORATORY DIVISION From: New York  
Re: 265A-NY-259028, 12/10/1996

[REDACTED] requested the Chemistry and Toxicology Unit to examine items #11- approximately 4' x 3' floor panel #22, #12 - magnet from Row 4, Seat 5, #13 - floor hatch forward cabin EE compartment and #14 - floor panel section #20 forward cabin of luggage, for the presence of explosives and other materials. b7c

Electronic Communication dated 7/28/96, drafted by SA [REDACTED] requested the Chemistry and Toxicology Unit to examine items #15- floor panel #187, #16- floor panel #177, #17 - floor panel #121 and #18 - floor panel #76, for the presence of explosives and other materials.

Electronic Communication dated 7/28/96, drafted by SA [REDACTED] requested Materials and Analysis Unit to conduct scanning electron microscope (SEM) examinations and metallurgical examinations of item #20 - one (1) silver piece of metal and #21 - one (1) silver colored meal strip, to determine type of metal and characterization of the small holes thereon. (Item #19 was submitted for comparison purposes.) b7c

Electronic Communication dated 7/29/96, drafted by SA [REDACTED] requested Materials and Analysis Unit to conduct scanning electron microscope (SEM) examinations and metallurgical examinations of item #22 - one (1) piece of shiny, silver colored metal strip, item #23 - one (1) piece of charred, pitted, dull, silver colored metal, item #24 - one (1) piece of charred pitted, dull, silver colored metal, item #25 - one (1) piece of charred, corroded, dull, silver colored metal, and item #26 - one (1) piece of shiny, silver colored meal with an egg crate appearance, to determine type of metal and characterization of the small holes thereon.

Lab Receipt dated 7/30/96, recognizes receipt of Q25 - Q81 - various types of cameras, film, video cameras and video tapes.

Electronic Communication dated 8/4/96, drafted by SA [REDACTED] requested Materials and Analysis Unit to examine item #27 - piece of glass fragment imbedded in lavatory E left outside wall panel, to determine the composition of the glass and possible sources of the specimen. b7c

Electronic Communication dated 8/14/96, drafted by SA [REDACTED] requested Special Photographic Unit to process and print eleven (11) cameras containing film, various 135 mm film and two (2) TDK TC-30 VHS.

Electronic Communication dated 8/16/96, drafted by SA [REDACTED] requested the Chemistry and Toxicology Unit to examine item #31- floor panel with attached tag bearing number

To: FBIHQ LABORATORY DIVISION From: New York  
Re: 265A-NY-259028, 12/10/1996

815-21 and identified lot number 8/9/96-1, for the presence of explosives and other materials.

Electronic Communication dated 8/17/96, drafted by SA [REDACTED] requested the Chemistry and Toxicology Unit to examine item #32- floor panel with attached tag bearing number 817-5 and identified lot number 8/5/96-70 and item #33- three (3) viles containing scrapings from floor panel, for the presence of explosives and other materials. b7C

Electronic Communication dated 8/26/96, drafted by SA [REDACTED] requested the Chemistry and Toxicology Unit to examine item #34- canvas sheet, for the presence of explosives and other materials.

Electronic Communication dated 9/07/96, drafted by SA [REDACTED] requested the Chemistry and Toxicology Unit to examine items #35 - one (1) piece of carpeting 20 1/2" x 15', #36 - one (1) piece of carpeting 20 1/2" x 9' 6", #37 - damaged section of starboard fuselage near section 920, #38 - metal fragment, #39- fractured duct flange, #40 - section of damaged fuel probe, for the presence of explosives and other materials. b7C

The communication also requested Materials and Analysis Unit to conduct appropriate metallurgical examinations of items #37 thru #40, to characterize the deformation, thermal damage and/or fractures.

Electronic Communication dated 9/09/96, drafted by SA [REDACTED] requested the FBI Laboratory to conduct appropriate examinations of six (6) pieces of leather to determine if the leather pieces are debris from captioned matter. b7C

Electronic Communication dated 9/11/96, drafted by SA [REDACTED] requested the Chemistry and Toxicology Unit to examine items #1 - surface of wing rib, #2 - black back pack, #3 - gray plastic child's car seat, #4 - tan bag made for York Luggage, #5 - fragmented piece of luggage, #6 - fragmented piece of silver colored metal and #8 - fragmented piece of silver colored metal, for the presence of explosives and other materials. Item #7 - white powder, was to be examined to identify the nature of the substance.

The communication also requested Materials and Analysis Unit to conduct scanning electron microscope (SEM) examinations and metallurgical examinations of item #6 and #8, to determine type of metal and characterization of the small holes thereon.

Electronic Communication dated 9/12/96 drafted by SA [REDACTED] requested Chemistry and Toxicology Unit to b7C

To: FBIHQ LABORATORY DIVISION From: New York  
Re: 265A-NY-259028, 12/10/1996

examine item #41- one (1) piece of blue carpet, for the presence of explosives and other materials.

Electronic Communication dated 10/04/96 drafted by SA [REDACTED] requested Chemistry and Toxicology Unit to examine items #42- one (1) piece of gray carpet approximately 4" x 9 1/2" and #43 - one (1) piece of gray carpet approximately 7" x 14", for the presence of explosives and other materials. b7C

Electronic Communication dated 11/08/96 drafted by SA [REDACTED] requested Materials Analysis Unit to conduct scanning electron microscope (SEM) examinations and other appropriate metallurgical examinations on item # 45 - one (1) "L-shaped" piece of metal approximately 3 1/2' believed to be a section of wing, to determine failures and whether this item suffered explosive damage of any type.

The communication also requested Chemistry and Toxicology Unit to examine #45 and conduct appropriate analysis including, but not limited to, tests for explosive residue.

Electronic Communication dated 11/13/96 drafted by SA [REDACTED] requested Chemistry and Toxicology Unit to examine items #46 - lower left back of seat 2 row 19, #47 - upper left corner back of seat 6 row 18, #48 - upper right corner back of seat 7 row 19, #49 - upper left corner back of seat 8 row 17, #50 - upper right corner back of seat 9 row 26, #51 - upper right corner back of seat 6 row 24, #52 - top center section back of seat 2 row 27, for explosive residues and identify the presence of any other materials, particularly those not normally associated with adhesives. b7C

The communication also requested Materials and Analysis Unit to examine the items to identify all known substances.

Electronic Communication dated 11/19/96 drafted by SA [REDACTED] requested Chemistry and Toxicology Unit to examine item #LF-5 - two (2) jars; one of swabbings of the outside of skin of LF-5 and one containing a sample of the solvent used, for the presence of explosives and other materials. b7C

CC: 1 - ADIC James K. Kallstrom  
1 - SAC John O'Neill  
1 - ASAC George H. Andrew  
1 - SSA [REDACTED]  
1 - SSA [REDACTED]  
1 - SSA [REDACTED] b7C

**5234, P&PM**

\* For Additional Items Use CF 6051A.

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XXXXXX  
XXXXXXFEDERAL BUREAU OF INVESTIGATION  
FOIPA  
DELETED PAGE INFORMATION SHEET

7 Page(s) withheld entirely at this location in the file. One or more of the following statements, where indicated, explain this deletion.

- ☐ Deletions were made pursuant to the exemptions indicated below with no segregable material available for release to you.

Section 552Section 552a☐ (b)(1)☐ (b)(7)(A)☐ (d)(5)☐ (b)(2)☐ (b)(7)(B)☐ (j)(2)☐ (b)(3)☐ (b)(7)(C)☐ (k)(1)☐ (b)(7)(D)☐ (k)(2)☐ (b)(7)(E)☐ (k)(3)☐ (b)(7)(F)☐ (k)(4)☐ (b)(4)☐ (b)(8)☐ (k)(5)☐ (b)(5)☐ (b)(9)☐ (k)(6)☐ (b)(6)☐ (k)(7)

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265A-NY-254028-SUB FF2, Lab 15 Documents dated 12 November 1996  
and 7 November 1996

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Date: JULY 31, 1996

Re: (265A-NY-259028)  
(I-46)

To: DADIC, NEW YORK

ATTN: SA [REDACTED]

b7C

Invoice of Contents

Description of Contents:

- Q10 ONE ORIGINAL VHS-C VIDEO CASSETTE TAPE
- (10) TEN PROCESSED VHS VIDEO CASSETTE TAPE COPIES
- (30) THIRTY B & W VIDEO PRINTS
- (49) FORTY-NINE COLOR VIDEO PRINTS

FBI File#

LAB# 60726017 E XX

Your#

Return to

Ext.

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EVIDENCE EVIDENCE EVIDENCE  
PRIORITY HANDLING REQUESTED.  
UPON RECEIPT, DELIVER TO  
CASE AGENT, OR CASE SUPVR.

Shipping#

Shipping Methods

☐ Registered Mail/Return Receipt Requested

☒ Overnight Security Signature Service

☐ Other

Packaged by

Signature

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265A-NY-259028-SUB lab

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AUG 17 1996	
FBI — NEW YORK	
	TC

3  
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☐ Hand Delivered

Date

All items listed above are contained in this package.

Signature Written

97  
DUPLICATE COPY

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 4-14-00 BY SPK/SC/PM



FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

To: ADIC, NEW YORK

Date: August 5, 1996

FBI File No. 265A-NY-259028

Lab No. 60725009 D HD

Reference: Evidence receipt dated July 25, 1996

Your No. 265A-NY-259028

Re: TWA Downing

*[Handwritten signatures and initials]*  
SAC  
ASACC

Specimens received: July 24, 1996

Specimens:

Q9 One (1) strip of color 35-mm (Fuji G-400) negatives  
(4 frames exposed 1A-4A)

Results of examination:

The (Q9) strip of color negatives was examined and frame #4A was selected for further examination. Prints of the selected frame were made using conventional photographic techniques to extract maximum image detail. The selected frame was scanned electronically to produce a digital image. The image was processed digitally using an equalization operator and printed to extract maximum image detail.

Page 1

Enclosures (2)

*[Handwritten notes]*  
photo of Party Background  
object is I-46  
Unknown  
ALL INFORMATION CONTAINED  
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DATE 8-18-00 BY SP5/SCP/VA

265A-NY-259028-SUB

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FBI - NEW YORK	

*[Handwritten notes]*  
LAB 3  
4  
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The submitted evidence and photographs produced in this examination are being returned herewith.

If there are any questions concerning this examination, please contact Examiner [REDACTED] b7c



FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

To: ADIC, NEW YORK

Date: August 5, 1996

FBI File No. 265A-NY-259028

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Page 1

Enclosures (2)

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page 2

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265A-NY-259028-Sub-Lab Dated 8/5/96 and stamped as  
received 9/16/96 - Page 2

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FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

Date: October 29, 1996

To: [REDACTED]  
Office of the Medical Examiner  
Sidney B. Weinberg Center for  
Forensic Sciences  
Building #487, North County Complex  
Veteran's Memorial Highway  
Hauppauge, New York 11787-4311

FBI File No. 265A-NY-259028

Lab No. E-10969

b7c

Reference: FBI, New York telephone call July 17, 1996

Your No.

Re: UNKNOWN SUBJECT(S);  
EXPLOSION OF TWA FLIGHT #800;  
JULY 17, 1996;  
ACTS OF TERRORISM - INTERNATIONAL  
TERRORISTS - EXPLOSIVES AND INCENDIARY DEVICES

Specimens received:

The following report covers the work of the FBI Disaster Squad and the Suffolk County, New York, Police Department in connection with the examination of victims' remains in an effort to obtain inked prints for identification purposes through August 7, 1996.

One hundred ninety-six bodies and numerous body parts from two hundred thirty victims were examined, resulting in fingerprints and footprints being obtained.

Ninety-seven of the victims were identified by fingerprints and a footprint from one hundred parts of the remains. The FBI certifies the fingerprint and footprint identifications are positive identifications.

(Continued on next page)

② - FBI, New York

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LAB

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This Report Is Furnished For Official Use Only

[REDACTED]  
October 29, 1996

b7c

The identifications effected by fingerprints and the footprint are set forth on an attached list.

The fingerprint cards and personal effects received by the Suffolk County Police Department are being returned, under separate cover, to the Suffolk County Police Department for final disposition. The remaining items will be returned by the FBI Disaster Squad to the respective contributors.

1 - Commissioner  
Suffolk County Police Department  
Attention: [REDACTED]  
[REDACTED] Homicide Section  
30 Yaphank Avenue  
Yaphank, New York 11980

b7c

Aikens, Sandra Lee - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Amlund, Svein - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

Anderson, Seana Michele - [REDACTED]

She was identified with a fingerprint [REDACTED]  
[REDACTED]

Babb, David Alfred - [REDACTED]

He was identified with a right footprint [REDACTED]  
[REDACTED]

Baszczewski, Daniel - [REDACTED]

He was identified with [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Beatty, Charles Ross - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

Becker, Michele - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Bohlin, Michelle Elizabeth - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Bossuyt, Luc Yvon - [REDACTED]

He was identified with a fingerprint [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Braman, Rosemary Patterson - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Buttaroni, Mirco - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

Caillaud, Anthony - [REDACTED]

He was identified with a fingerprint [REDACTED]  
[REDACTED]

Callas, Daniel John - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Campbell, Jr., Richard Gordon - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

Carven, Joseph A. (parents' name Vonhedrick) - [REDACTED]

He was identified with a fingerprint [REDACTED]  
[REDACTED]

Carven, Paula Ann - [REDACTED]

She was identified with a fingerprint [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Charbonnier, Jacques Raoul - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Chemtob, Monique Michele - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Christopher, Janet Louise - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Crandell, Pamela Lee - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Dadi, Marcel - [REDACTED]

He was identified with a fingerprint [REDACTED]  
[REDACTED]

D'Alessandro, Anna - [REDACTED]

She was identified with a photographic copy of a  
fingerprint, [REDACTED]  
[REDACTED]

Dickey, Deborah Ann - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Dodge, Jr., Warren Andrews - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Duarte-Coiner, Ana Tally - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Edwards, Daryl Kevin - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

Eshleman, Douglas - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Estival, Alexandre - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

Feeney, Deirdre - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Gabor, Daniel Kirk - [REDACTED]

He was identified with a fingerprint [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Gasq, Francis Gaston - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

b7C  
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b6

Gough, Donald Ellis - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

Graham, Steven Kenneth - [REDACTED]

He was identified with a fingerprint [REDACTED]  
[REDACTED]

Gray III, Charles H. - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

b7C  
b7D  
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Griffith, Donna - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

Griffith, Jo-Anne - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

b7C  
b7D  
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Grivet, Cyril Daniel - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

b7C  
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Hammer, Tracy Anne - [REDACTED]

She was identified with a fingerprint [REDACTED]  
[REDACTED]  
[REDACTED]

Hochard, Jean Pierre - [REDACTED]

He was identified with a fingerprint [REDACTED]  
[REDACTED]  
[REDACTED]

Hogan, Jr., Harry David - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

b7C  
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Holst, Eric - [REDACTED]

He was identified with a fingerprint [REDACTED]  
[REDACTED]  
[REDACTED]

Holst, Virginia - [REDACTED]

She was identified with a fingerprint [REDACTED]  
[REDACTED]  
[REDACTED]

Ingenhuett, Lonnie L. - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

b7C  
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Johns, Courtney E. - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
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b6

Johnsen, Arlene Ellen - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Johnson, Eleanor Ann - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Karschner, Amanda M. - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
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Kevorkian, Ralph George - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

Krick, Oliver - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

Krikhan, Margot - [REDACTED]

She was identified with a fingerprint [REDACTED]  
[REDACTED]

b7C  
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Krukar, Andrew - [REDACTED]

He was identified with a fingerprint [REDACTED]  
[REDACTED]

b7C  
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Kwan, Barbara Lynn - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Kwiat, Kimberly - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Labys, Jane - [REDACTED]

She was identified with a fingerprint [REDACTED]  
[REDACTED]

Laforge, Alain - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Lamour, Yvon - [REDACTED]

He was identified with a fingerprint [REDACTED]  
[REDACTED]

Lang, Raymond A. - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

Lockhart, Maureen Margaret - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Loffredo, Elaine Frances - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Luevano, Jr., Elias V. - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

Lychner, Kathern Elizabeth - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Lychner, Pamela Sue - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Lychner, Shannon Evain - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Manchuelle, Edouard Francois - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

Mazzola, Salvatore - [REDACTED]

He was identified with a fingerprint [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

McPherson, Pamela Vincentia - [REDACTED]

She was identified with fingerprints [REDACTED]

b7C  
b7D  
b6

Meade, Sandra J. - [REDACTED]

She was identified with fingerprints [REDACTED]

Miller, Gideon B. - [REDACTED]

He was identified with fingerprints [REDACTED]

Miller, Joan - [REDACTED]

She was identified with fingerprints [REDACTED]

b7C  
b7D  
b6

Miller, Robert Philip - [REDACTED]

He was identified with fingerprints [REDACTED]

Nelson, Alecia Carlos - [REDACTED]

She was identified with fingerprints [REDACTED]

b7C  
b7D  
b6

Notes, Gadi, [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

b7C  
b7D  
b6

O'Hara, Caitlin - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

O'Hara, John Joseph - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

Omiccioli, Monica - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Orman, Alan Jay - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

Price, Peggy Ann - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

Privette, Brenda Kay - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Rhoads III, Harry Short - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Rhoads, Marit E. - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Richter, Annelyse - [REDACTED]

She was identified with a fingerprint [REDACTED]  
[REDACTED]

Rojany, Von Michael - [REDACTED]

He was identified with a fingerprint [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Schuldt, Michael George - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

Scott, Joseph Michael - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

Shorter, Ana Maria - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Silverman, Candace Beth - [REDACTED]

She was identified with a fingerprint [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Simmons, Olivia J. - [REDACTED]

b7C  
b7D  
b6

She was identified with fingerprints [REDACTED]  
[REDACTED]

Torche, Melinda Diane - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Uzupis, Larissa - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Verhaeghe, Rick Lee - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Warren, Lani Elaine - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]

Watson, Jacqueline - [REDACTED]

She was identified with a fingerprint [REDACTED]  
[REDACTED]

Weatherby, Thomas - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Windmiller, Ruben - [REDACTED]

He was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

b7C  
b7D  
b6

Wolfson, Wendy - [REDACTED]

She was identified with a fingerprint [REDACTED]  
[REDACTED]  
[REDACTED]

Wolters, Bonnie - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

Ziemkiewicz, Jill Ann - [REDACTED]

She was identified with fingerprints [REDACTED]  
[REDACTED]  
[REDACTED]

b7C  
b7D  
b6



FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

Date: November 14, 1996

To: ADIC, New York

FBI File No. 265A-NY-259028

Lab No. 61112026 S RU VJ

Reference: Communication dated November 7, 1996

Your No. 265A-NY-259028 (Pending)

Re: UNSUB(S);  
EXPLOSION OF TWA FLIGHT # 800;  
07/17/96;  
AOT - IT; EOD;

*✓ ASAC C*  
*for I-46*

Specimens received: At Grumman on November 8, 1996

## Specimens:

Q97 #44 entrapped material from SWB #2, CW702 approx.  
41.7 RBL.

## Result of examination:

Specimen Q97 is a piece of woven fiberglass.

The submitted item will be returned to you under  
separate cover by registered mail.

265A-NY-259028-SUB *LAR*

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*b7c*

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- 1 -

## FEDERAL BUREAU OF INVESTIGATION

Date of transcription 9/10/96

The NATIONAL TRANSPORTATION SAFETY BOARD, Fuel Systems Sub-Group regarding the July 17, 1996 crash of Boeing 747-131, N93119 operated by TRANS WORLD AIRWAYS (TWA) as Flight 800 in East Moriches, New York met with representatives from the George C. Marshall Space Flight Center, National Aeronautics and space administration Huntsville, Alabama to review the following components of the above described aircraft.

1. 22 segments of fuel sensors.
2. 8 1/2 fuel transfer pumps.
3. 5 fuel gauges.
4. 1 flight engineer fuel jettison panel.
5. 1 flight engineer panel.
6. 5 circuit breakers.

These items were boxed by [REDACTED] NATIONAL TRANSPORTATION SAFETY BOARD (NTSB) and transported by him from Long Island, New York to Huntsville, Alabama. [REDACTED] maintained care custody and control of these components along with [REDACTED] of the NTSB and [REDACTED] of the NTSB. Upon the completion of the investigation at the MARSHALL SPACE FLIGHT CENTER, [REDACTED] repacked the above described evidence and transported it back to Long Island, New York. b7c

Attached is a list of the individuals from the NTSB Fuel Systems Sub-Group and employees of the MARSHALL SPACE FLIGHT CENTER who assisted in the dismantling of the above listed parts.

At the conclusion of the dismantling of the above-described parts, the NTSB reached the conclusion that none of these parts were the cause of the above described aircraft accident. A thorough report of this investigation will be written by [REDACTED] for the NTSB in the near future. 265A-NY-259028-SUB b7c

Investigation on 08/24-26/96 at Huntsville, Alabama

File # 265A-NY-259028-FD302

by SA [REDACTED] kmm

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Date dictated

08/30/96

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FBI-NEW YORK	

## FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE

Date: 02/06/1997

To: LABORATORY DIVISION

ATTN: SCIENTIFIC ANALYSIS SECTION;  
PAINTS AND POLYMER SUB UNIT;  
FORENSIC EXAMINER [REDACTED]

b7c

From: ADIC, NEW YORK (SQUAD I-46)

Contact: [REDACTED]

Approved By: [REDACTED]

Drafted By: [REDACTED]

Case ID #: 265A-NY-259028 (Pending)

Title: UNSUBS;  
EXPLOSION OF TWA FLIGHT 800;  
AOT-IT-EOD

Synopsis: Transmittal of evidence to the Laboratory Section.

Package Copy: Being forwarded under separate cover is one package containing evidence seized in connection with captioned matter. The items listed below will be sent via Federal Express to the Laboratory Division. The evidence being submitted is described as follows:

Item Marked #	MM1 CW-504 LBL-104	02/05/97
Item Marked #	MM3 CW-504 LBL-106.72	02/05/97
Item Marked #	MM4 CW-504 LBL-106	02/05/97
Item Marked #	MM5 CW-114	

The items set forth above, MM1, MM3, MM4, and MM5 represent one piece (in each bag) of splatter material, brown in color, retrieved from the upper outboard (port) posterior side of CW 504.

DETAILS: The above listed items were retrieved from the upper outboard (port) posterior side of CW 504 which is part of the front spar of the Center Wing Box of TWA flight 800, also known as TWA Equipment 17119.

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265A-NY-259028

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sub LAB 8 b7c

TC [REDACTED]

06/01/1995)

**FEDERAL BUREAU OF INVESTIGATION**

To: SAC, DIVISION I From: NEW YORK

Re: 265A-NY-259028, 02/06/1997

It should be noted that the same material, noted as Item MM1, Item MM3, Item MM4 and Item MM5, was submitted to the FBI Laboratory via Federal Express, airbill number 3920905015 on February 6, 1996.

♦♦

To: LABORATORY DIVISION From: NEW YORK, SQUAD I-46  
Re: 265A-NY-259028, 02/05/1997

LEAD(s):

Set Lead 1:

LABORATORY DIVISION, SCIENTIFIC ANALYSIS SECTION, PAINTS AND  
POLYMER SUB UNIT; at FBIHQ, Washington, D.C.

CHEMISTRY TOXICOLOGY UNIT, PAINTS AND POLYMER  
SUB UNIT, is requested to examine items marked # MM1, MM3, MM4  
and MM5, and attempt to determine the composition of the samples  
provided herein.

♦♦

## FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE

Date: 02/06/1997

To: SAC, DIVISION I

Attn: ASAC CHARLES DOMROE  
SSA [REDACTED]  
EVIDENCE CONTROL

b7c

From: NEW YORK

I-46

Contact: [REDACTED]

Approved By: [REDACTED]

Drafted By: [REDACTED]

Case ID #: 265A-NY-259028 (Pending)

Title: UNSUB(S)  
EXPLOSION OF TWA FLIGHT 800;  
JULY 17, 1996  
AOT-IT-EID

Synopsis: EVIDENCE TO BROOKHAVEN NATIONAL LABORATORY

Details: On February 4, 1996, a meeting was held at BROOKHAVEN NATIONAL LABORATORY, Upton, New York 11973-5000. The purpose of said meeting was to solicit any resources available at the Laboratory which might assist in determining a cause which resulted in the explosion of TWA flight 800 on January 17, 1996. Present at the aforementioned meeting were FBI investigators and FBI Laboratory personnel from FBIHQ, NTSB personnel, and BROOKHAVEN LAB personnel.

ⓧ  
TL

Pursuant to a mutual agreement between the FBI and the [REDACTED] BROOKHAVEN LABS, [REDACTED] the following piece of material taken from TWA flight 800 on February 5, 1997, will be turned over to BROOKHAVEN for the express purpose of determining the composition of same:

b7c

MM7, CW-129

One piece of splatter material, brown in color, retrieved from the interior surface of CW 129 which is located on the upper surface of the center fuel tank.

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FBI NEW YORK	

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TL [REDACTED]

10: FILE

from:

Sandia National Laboratories  
Dept. Explosives Applications (9333)

subject: Trip Report (11/7/96), Inspection of TWA800 wreckage

b7c

On Thursday, 11/7/96, at the request of the FBI, I inspected aircraft wreckage from the crash of TWA Flight 800. My FBI contact for this inspection tour was Special Agent [REDACTED] FBI Laboratory Explosives Unit, [REDACTED] for this case), there were three other agents from that unit also present. While there I also met with two representatives from the NTSB Office of Aviation Safety [REDACTED] (Aerospace Engineer), as well as Special Agent [REDACTED] from the FAA Aviation Explosives Security Division.

After [REDACTED] of all of the recovered parts areas, I focused my attention primarily on the [REDACTED] of the remains of the center fuel tank.

The center fuel tank is a rigid, roughly rectangular, aluminum box. It is divided into [REDACTED] compartments by floor-to-ceiling partitions which run side-to-side. The first compartment is sealed from the tank and is used as a dry-well (p [REDACTED] for special storage space). The in-tank partitions, presumably used to reduce fuel sloshing, are constructed of vertical I-beams (aluminum) about a foot apart, covered on one side with thin aluminum sheet. There are fuel pass-through holes about three to four inches diameter along the bottom of the partitions an inch or two above floor level.

## 2. ELECTRICAL PUMPS AND PROBES

I was told that there are five electrical fuel pumps in the tank which are in sumps in the floor. There are seven electrical fuel level (or quantity) probes in the tank (I didn't see any, but their approximate original locations were given by plastic pipe surrogates suspended from the ceiling). I was shown a fuel probe from a wing tank, which is presumably similar to the center tank probes, but of shorter length. Individual electrical sections within the probe were connected to each other with bare electric wire running between screw-and-nut terminals.

## 3. EVIDENCE OF GAS-PHASE DETONATION

I observed that there appear to be two zones in the center fuel tank that show evidence of possible gas phase detonation. One, adjacent to the side wall, on the right-hand side (facing forward) of the first compartment, and the second, toward the left-hand side of the second compartment. The reason for believing that detonations occurred in these two areas was the amount and degree of metal bending and crushing present in these areas.

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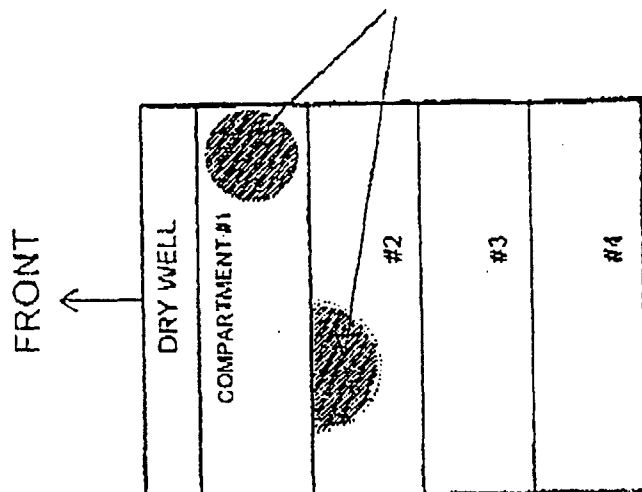
302V-1A-328053-205

There are several uniquely distorted and torn pieces of metal within the fuel tank which may be amenable to mechanical and computer analyses which could yield pressures and pressure distributions which had existed inside the tank at the time it exploded. (It should be noted here that evidence of gas-phase detonation is quite different than that from condensed-phase detonations, the former producing pressures of 10-20 atmospheres and the latter pressures of 50,000-400,000 atmospheres).

#### 4. IGNITION POINT LOCATION

The ignition source or initiation point appears to originate at the same location that was once occupied by an as yet unrecovered electrical fuel level probe at the center of the zone which seemed to have detonated at the right front corner of the tank (in the first compartment)..

Zones where occurrence of  
detonation is suspected



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FOIPA  
DELETED PAGE INFORMATION SHEET3 Page(s) withheld entirely at this location in the file. One or more of the following statements, where indicated, explain this deletion.

- ☒
- Deletions were made pursuant to the exemptions indicated below with no segregable material available for release to you.

Section 552Section 552a☐ (b)(1)☐ (b)(7)(A)☐ (d)(5)☐ (b)(2)☐ (b)(7)(B)☐ (j)(2)☒ (b)(3)☐ (b)(7)(C)☐ (k)(1)Rule 6(e) Federal Rules  
of Criminal Procedure☐ (b)(7)(D)☐ (k)(2)☐ (b)(7)(E)☐ (k)(3)☐ (b)(7)(F)☐ (k)(4)☐ (b)(4)☐ (b)(8)☐ (k)(5)☐ (b)(5)☐ (b)(9)☐ (k)(6)☐ (b)(6)☐ (k)(7)

- ☐
- Information pertained only to a third party with no reference to the subject of your request or the subject of your request is listed in the title only.
- 
- ☐
- Documents originated with another Government agency(ies). These documents were referred to that agency(ies) for review and direct response to you.

Pages contain information furnished by another Government agency(ies). You will be advised by the FBI as to the releasability of this information following our consultation with the other agency(ies).

Page(s) withheld inasmuch as a final release determination has not been made. You will be advised as to the disposition at a later date.

Pages were not considered for release as they are duplicative of \_\_\_\_\_

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- ☒
- The following number is to be used for reference regarding these pages:

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X Deleted Page(s) X  
X No Duplication Fee X  
X for this page X  
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FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

Date: January 24, 1997

To: ADIC, New York

FBI File No. 265A-NY-259028

Lab No. 60723031 S AD AR RU  
60730006 S AD RU  
60730007 S AD RU  
60806002 S AD ZG  
60909001 S AD AR RU  
61118011 S AD HJ  
61127057 S AD HK

Reference: Communication dated July 22, 1996

Your No. 265A-NY-259028

Re: UNSUBS;  
EXPLOSION OF TWA FLIGHT #800;  
AOT-IT;  
EOD  
OO: NEW YORK

Specimens received: July 23, 1996

Specimens:

- Q1 Section of aircraft wing (your item #1)
- Q2 Black back pack (your item #2)
- Q3 Children's car seat (your item #3)
- Q4 Tan colored piece of luggage (your item #4)
- Q5 Fragmented piece of luggage (your item #5)
- Q6 Silver colored metal fragment (your item #6)
- Q7 Unknown white powder (your item #7)
- Q8 Silver colored metal fragment (your item #8)

265A-NY-259028-SUB LAB-

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JAN 30 1997

FBI NEW YORK

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FBI NEW YORK	
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5020-VA-508000-200

Results of Examination:

BACKGROUND INFORMATION:

Your office advised that on 7/17/96 at approximately 8 PM a Boeing 747 aircraft designated TWA Flight 800 exploded over the Atlantic Ocean approximately 20 miles south of the Long Island, New York coast. In an effort to determine the cause of the explosion numerous pieces of wreckage have been sent to the Laboratory for examination.

METALLURGY EXAMINATIONS:

60723031 S AD AR RU

Metallurgical examinations of specimens Q6 and Q8 revealed no characteristic indicative of blast damage. The observed surface damage was concluded to be attributable to corrosion mechanisms, with the exception of certain manufacturing/service anomalies. ✓

60730006 S AD RU

Metallurgical examinations of specimens Q18 and Q19 revealed no characteristic indicative of blast damage. The surface damage exhibited is concluded to be the result of corrosion. ✓

60730007 S AD RU

Metallurgical examinations of specimens Q20 through Q24 revealed no characteristic indicative of blast damage. The observed surface damage was concluded to be attributable to corrosion mechanisms. ✓

60909001 S AD AR RU

Joint evaluation by FBI and National Transportation Safety Board (NTSB) metallurgists of the Q90 portion of fuselage and Q91 fuselage fragment revealed no exogenous deposit of apparent probative value or characteristic of proximity to a high order explosive.

The Q92 fractured duct flange and the Q93 section of fuel probe were released to the custody of [REDACTED] NTSB, on September 11, 1996, and will be the subject of a separate report by NTSB. b7c

61118011 S AD HJ

Metallurgical examinations of the Q110 section revealed no characteristic indicative of high explosive damage.

GLASS EXAMINATION:

60806002 S AD ZG

Although the origin of the Q83 glass fragment cannot be precisely realized, optically, physically and compositionally this glass is generally characteristic of that use in "light bulbs" and fluorescent tubes.

PAINT EXAMINATION:

Specimens Q98 through Q107, K1 and K2, were examined microscopically. The paint samples K1 and K2 exhibited the following layer structures:

1. Clear
2. Orange
3. Dark Orange
5. Black primer

Present in the debris removed from Q98 and Q99 were numerous particles of single layered paint-like samples and several multi-layered chips. Based upon the comparison examinations conducted, the paint samples from 98 and Q99 could not be associated with Q101, Q103, or Q107, however, the samples from Q98 and Q99 could not be eliminated as having originated from the sources represented by K1 or K2. The red smears on Q100 and Q102 were microscopically consistent with Q106. The blue samples Q104 and Q105 were compared and dissociated by microchemical tests. No source could be determined for Q104.

DISPOSITION OF SPECIMENS:

The submitted specimens will be returned to your office under separate cover via registered mail or equivalent.

Please call the Explosives Unit-Bomb Data Center, (202) 324- [REDACTED] if you have any questions concerning the results of examinations in this case.

b7c

b7c



FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

Date: March 26, 1997

To: ADIC, New York

FBI File No. 265A-NY-259028

Reference: Communication dated July 22, 1996

Your No. 265A-NY-259028

Re: UNSUBS;  
EXPLOSION OF TWA FLIGHT #800;  
AOT-IT;  
EOD  
OO: NEW YORK

Lab No. 60723031 S AD AR  
60730006 S AD RU  
60730007 S AD RU  
60806002 S AD ZG  
60909001 S AD AR RU  
61118011 S AD HJ  
61127057 S AD HK  
60727032 S AD AR  
60728031 S AD AR  
60804032 S AD AR  
60817031 S AD AR  
60818061 S AD AR  
60830005 S AD AR  
60912038 S AD AR  
61007005 S AD AR

Specimens received: July 23, 1996

Specimens: The following items were received in the Laboratory on July 23, 1996 under your communication dated July 22, 1996 and examined under Laboratory Number 60723031 S AD AR RU:

- Q1 Section of aircraft wing (your item #1)
- Q2 Black back pack (your item #2)
- Q3 Children's car seat (your item #3)
- Q4 Tan colored piece of luggage (your item #4)
- Q5 Fragmented piece of luggage (your item #5)
- Q6 Silver colored metal fragment (your item #6)
- Q7 Unknown white powder (your item #7)
- Q8 Silver colored metal fragment (your item #8)

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The results of Special Photo examinations of Q9 (Strip of film, Laboratory Number 60725009 D HD) will be provided in a separate report.

Specimens: The following items were received in the Laboratory on July 27, 1996 under your communication dated July 27, 1996 and examined under Laboratory Number 60727032 S AD AR RU:

- Q9 Section of floor panel (your item #11)
- Q10 Magnet (your item #12)
- Q11 Section of floor hatch (your item #13)
- Q12 Section of floor panel (your item #14)

Specimens: The following items were received in the Laboratory on July 28, 1996 under your communication dated July 27, 1996 and examined under Laboratory Number 60728031 S AD AR:

- Q13 Floor panel #187 (Boeing part #65B06099-600) (1B44, item 15)
- Q14 Floor panel #177 (Boeing part #65B08273-6) (1B45, item 16)
- Q15 Floor panel #121 (Boeing part #65B08272-12) (1B46, item 17)
- Q16 Floor panel #76 (Boeing part #65B06278-601) (1B47, item 18)

Specimens: The following items were received in the Laboratory on July 30, 1996 under your communication dated July 28, 1996 and examined under Laboratory Number 60730006 S AD RU:

- Q17 One (1) round, domed shaped piece of metal (1B54 - your item #19)
- Q18 One (1) section of metal (consisting of two (2) pieces welded/bonded together) (1B55 - your item #20)
- Q19 One (1) piece of metal with two (2) countersunk holes (1B46 - your item #21)

Specimens: The following items were received in the Laboratory on July 30, 1996 under your communication dated July 29, 1996 and examined under Laboratory Number 60730007 S AD RU:

- Q20 One (1) piece of metal silver in color approximately 11 3/4" with several manufacturer holes (1B70 - your item #22)
- Q21 One (1) piece of alloy like metal 16 7/8" (1B72 - your item #23)
- Q22 One (1) piece of alloy like metal 13 1/2" (1B73 - your item #24)
- Q23 One (1) piece of alloy like metal approximately 7" with angled piece riveted to it (1B71 - your item #25)
- Q24 One (1) piece of silver in color corrugated-like metal approximately 12" (1B74 - your item #26)

Specimens: The following items were received in the Laboratory on July 30, 1996 under your communication dated July 29, 1996, submitted under 1B59 and examined under Laboratory Number 60730005 S AD ZO XO:

- Q25 One (1) Pentax 35mm camera (item #1)
- Q26 One (1) roll 35mm/24 film (item #2)
- Q27 One (1) disposable Fugi camera (item #3)
- Q28 One (1) roll of Fugi film (item #4)
- Q29 One (1) Mamiya 645 camera (item #5)
- Q30 One (1) Canon Owl camera with nine (9) rolls of canon film (item #6)
- Q31 One (1) Nikon camera with one (1) roll of film (item #7)
- Q32 One (1) roll of Kodak film/25 exposure (item #8)
- Q33 Chinon camera with seven (7) rolls of film (item #9)

Q34 One (1) Olympus camera (item #11)

Q35 One (1) video cassette and one (1) roll of film (item #10)

Q36 One (1) Kodak Camera with one (1) roll of film (item #12)

Q37 One (1) Mamiya 645 camera (item #13)

Q38 One (1) Polaroid camera (item #14)

Q39 Five (5) rolls of film (item #15)

Q40 One (1) camera (item #16)

Q41 One (1) Polaroid film cartridge (item #17)

Q42 One (1) JVC video camera with tape (item #18)

Q43 One (1) Olympus AF-10/Super Camera (item #19)

Q44 Rolls of film (item #20)

Q45 One (1) Touch Zoom Nikon camera (item #21)

Q46 Five (5) rolls of film (item #22)

Q47 One (1) Minolta camera (item #23)

Q48 Three (3) rolls of film (item #24)

Q49 Cat Camera (item #25)

Q50 Polaroid camera (item #26)

Q51 Two (2) disposable cameras (item #27)

Q52 One (1) Contax camera (item #28)

Q53 Three (3) rolls of film (item #29)

Q54 Seven (7) rolls of film (item #30)

Q55 One (1) Minolta camera with two (2) rolls of film (item #31)

Q56 Super film shield containing film (item #32)

Q57 One (1) Nikon 35mm camera (item #33)

Q58 One (1) Minolta x700 camera with flash and one (1) roll of film (item #34)

Q59 Five (5) rolls of film (item #35)

Q60 Thirteen (13) rolls of film (item #36)

Q61 One (1) Keystone Camera (item #37)

Q62 One (1) Olympus camera and one (1) canister of film (item #38)

Q63 One (1) camera with film (item #39)

Q64 One (1) roll of film (item #40)

Q65 Two (2) disposable cameras (item #41)

Q66 One (1) roll of film (item #42)

Q67 One (1) Biboa click camera (item #43)

Q68 Two (2) cassettes with player (item #44)

Q69 One (1) roll of film (item #45)

The following items were submitted under 1B60:

Q70 One (1) Polaroid camera with four (4) rolls of film (item #101)

Q71 One (1) Vivitar series 440Z camera (item #102)

Q72 One (1) fanny pack containing a camera and four rolls of film (item #103)

Q73 One (1) Minolta Dinax 3xi camera with film (item #104)

Q74 One (1) Polaroid camera 635 CL with one (1) roll of film (item #105)

Q75 One (1) Ricoh camera and case (item #106)

Q76 Four (4) canisters of film (item #107)

Q77 One (1) Olympus camera with four (4) rolls of film in MacGregor case (item #108)

Q78 One (1) Minolta Freedom camera with one (1) roll of film (item #109)

Q79 One (1) Nikon Nice Touch camera and film (item #110)

Q80 One (1) JVC Camcorder and bag (item #111)

Q81 One (1) Sony video camera and film in case (item #112)

Specimens: The following item was received in the Laboratory on August 4, 1996 under cover of FD-192 dated August 3, 1996 referencing 1B104 item #28 and examined under Laboratory Number 60804032 S AD AR:

Q82 One (1) section of aircraft floor panel (1B104, your item # 28)

Specimens: The following item was received in the Laboratory on August 6, 1996 under your communication dated August 4, 1996 and examined under Laboratory Number 60806002 S AD ZG:

Q83 One (1) fragment of transparent glass (1B91, your item #27)

The results of Engineering Research Facility examinations of Q84 Laboratory Number 60809002 E QZ were provided in a separate report dated 9/23/96 (Laboratory #60809002 E QZ).

Specimens: The following item was received in the Laboratory on August 17, 1996 under your communication dated August 16, 1996 and examined under Laboratory Number 60817031 S AD AR:

Q85 One (1) section of aircraft floor panel (1B148, your item # 31)

Specimens: The following items were received in the Laboratory on August 18, 1996 under your communication dated August 17, 1996 and examined under Laboratory Number 60818061 S AD AR:

Q86 One (1) section of aircraft floor panel (your item #32) and three (3) vials of scrapings from floor panel (your item #33)

Specimens: The following items were received in the Laboratory on August 18, 1996 under your communication dated August 14, 1996 and examined under Laboratory Number 60818062 S AD HD:

ALSO SUBMITTED:

One (1) plastic bucket containing eleven (11) cameras containing film; various 135mm film canisters; and two (2) TDK TC-30 VHS video tapes

Specimens: The following item was received in the Laboratory on August 28, 1996 under your communication dated August 26, 1996 and examined under Laboratory Number 60830005 S AD AR:

Q87 One (1) sheet of canvas like material (1B167, your item #34)

Specimens: The following items were received in the Laboratory on September 8, 1996 under your communication dated August 29, 1996 and examined under Laboratory Number 60909001 S AD AR RU:

Q88 One (1) piece of carpet approximately 20.5" (inches) wide by 19' (feet) long (your 1B193, item 35)

Q89 One (1) piece of carpet approximately 20.5" (inches) wide by 9' (feet) 6" (inches) long (your 1B192, item 36)

Q90 One (1) section of aircraft fuselage (your 1B194, item 37)

Q91 One (1) metal fragment from 1B194, item 37; cutoff wheel control sample with vacuuming (your 1B195, item 38)

Q92 Fractured duct flange (your 1B196, item 39)

Q93 Section of damaged fuel probe (your 1B197, item 40)

ALSO SUBMITTED:

Two (2) sets of photographs

Specimens: The following item was received in the Laboratory on September 12, 1996 under your communication dated September 10, 1996 and examined under Laboratory Number 60912038 S AD AR:

Q94 One (1) section of blue carpet (1B200, your item #41)

Specimens: The following items were received in the Laboratory on October 7, 1996 under your communication dated October 4, 1996 and examined under Laboratory Number 61007055 S AD AR:

Q95 One (1) section of carpet approximately 4" X 9" with miscellaneous wires (your 1B236, item #42)

Q96 One (1) section of carpet approximately 7" X 14" (your 1B237, item #43)

The results of Materials Analysis examinations of Q97 (Laboratory Number 61112026 S VJ RU) will be provided in a separate report.

Specimens: The following items were received in the Laboratory on November 27, 1996 under your communication dated November 22, 1996 and examined under Laboratory Number 61127057 S AD HK:

Q98 Scrapings (A) (Lab #827-8)

Q99 Scrapings (B) (Lab #926-23)

Q100 Scrapings (C) (RF-4)

Q101 Samples from motorcase body (F)

Q102 Samples from LF59 (G)

Q103 Samples from engine thrust reverser actuator (H)

Q104 Scrapings (I) (z5087)

Q105 Sample from tray table insulation (J)

Q106 Paint samples from fuselage

Q107 Samples from drone body (E)

Q108 Not used

K1 Samples from orange dolly (D)

K2 Samples from orange dolly #2 (K)

Specimens: The following items were received in the Laboratory on November 18, 1996 under your communication dated November 7, 1996 and examined under Laboratory Number 61118010 S/D AD  
HD:

Q109 One (1) bucket containing various cameras and film

Specimens: The following item was received in the Laboratory on November 18, 1996 under your communication dated November 8, 1996 and examined under Laboratory Number 61118011 S AD  
HJ:

Q110 One (1) section of bent (L-shaped) light weight metal approximately 100" in length (your 1B45, item #1)

Specimens: The following items were received in the Laboratory on November 14, 1996 under your communication dated November 13, 1996 and examined under Laboratory Number 61114052 S AD  
HK:

Q110a Piece from aircraft seat (your 1B270, item #46)

Q111 Piece from aircraft seat (your 1B270, item #47)

Q112 Piece from aircraft seat (your 1B270, item #48)

Q113 Piece from aircraft seat (your 1B270, item #49)

Q114 Piece from aircraft seat (your 1B270, item #50)

Q115 Piece from aircraft seat (your 1B270, item #51)

Q116 Piece from aircraft seat (your 1B270, item #52)

Specimens: The following items were received in the Laboratory on January 28, 1997 under cover of communication dated January 27, 1997 and were examined under Laboratory Number 70128025 S AD  
AR:

Q117 Swabbing (Your #1)

Q118 Swabbing (Your #2)

Q119 Swabbing (Your #3)

Q120 Swabbing (Your #4)

Q121 Swabbing (your #5)

NE1 Photograph

NE2 Photograph

NE3 Photograph

NE4 Swabbing with gloves

Specimens: The following items were received in the Laboratory on January 24, 1997 under cover of communication dated January 23, 1997 and examined under Laboratory Number 70124029 S AD  
AR:

Q122 Swabbing (your #1)

Q123 Swabbing (your #2)

Q124 Swabbing (your #3)

Q125 Swabbing (your #4)

Q126 Swabbing (your #5)

Q127 Swabbing (your #6)

NE5 Photograph of swabbing locations #1 through #5

NE6 Photograph of swabbing location #6

NE7 Test swabbing with gloves

Specimens: The following items were received in the Laboratory February 7, 1997 under cover of communication dated February 6, 1997 and examined under Laboratory Number 70207064 S AD  
HK:

Q128 One (1) piece of splatter material (your item #MM1  
CW-504LBL-104)

Q129- ..... One (1) piece of splatter material (your item #MM3  
CW-504LBL-106.72)

Q130            One (1) piece of splatter material (your item #MM4  
CW-504LBL-106)

Q131            One (1) piece of splatter material (your item #MM5  
CW-114)

NE8            One (1) blade

Results of Examination:

GENERAL INFORMATION:

This report incorporates the information provided in a draft report dated 1/31/97 ( Laboratory #60723031 S AD RU, 60730006 S AD RU, 60730007 S AD RU, 60806002 S AD ZG, 60909001 S AD AR RU, 61118011 S AD HJ, 61127057 S AD HK) as well as all examinations conducted to date. Additional examinations are ongoing and you will be advised of the results of those examinations in a subsequent report.

The following examinations are currently being conducted:  
Q25 through Q81 and Q109 - Special Photographic Unit  
Q110 through Q131, NE4, NE7 - Chemistry Unit

BACKGROUND INFORMATION:

Your office advised that on 7/17/96 at approximately 20:31 EST a Boeing 747 aircraft designated TWA Flight 800 exploded over the Atlantic Ocean approximately 10 miles south of the Long Island, New York coast. In an effort to determine the cause of the explosion numerous pieces of wreckage have been sent to the Laboratory for examination.

METALLURGY EXAMINATIONS:

60723031 S AD AR RU

Metallurgical examinations of specimens Q6 and Q8 revealed no characteristic indicative of blast damage. The observed surface damage was concluded to be attributable to corrosion mechanisms, with the exception of certain manufacturing/service anomalies.

60730006 S AD RU

Metallurgical examinations of specimens Q18 and Q19 revealed no characteristic indicative of blast damage. The surface damage exhibited is concluded to be the result of corrosion.

Specimen Q17 was concluded to be a remnant of an aluminum can bottom degraded by long term corrosion, and irrelevant to the TWA 800 investigation.

60730007 S AD RU

Metallurgical examinations of specimens Q20 through Q24 revealed no characteristic indicative of blast damage. The observed surface damage was concluded to be attributable to corrosion mechanisms.

60909001 S AD AR RU

Joint evaluation by FBI and National Transportation Safety Board (NTSB) metallurgists of the Q90 portion of fuselage and Q91 fuselage fragment revealed no exogenous deposit of apparent probative value or characteristic of proximity to a high order explosive.

The Q92 fractured duct flange and the Q93 section of fuel probe were released to the custody of [REDACTED] NTSB, on September 11, 1996, and will be the subject of a separate report by NTSB. **b7C**

61118011 S AD HJ

Metallurgical examinations of the Q110 section revealed no characteristic indicative of high explosive damage.

GLASS EXAMINATION:

60806002 S AD ZG

Although the origin of the Q83 glass fragment cannot be precisely realized, optically, physically and compositionally this glass is generally characteristic of that use in "light bulbs" and fluorescent tubes.

### PAINT EXAMINATION:

Specimens Q98 through Q107, K1 and K2, were examined microscopically. The paint samples K1 and K2 exhibited the following layer structures:

1. Clear
2. Orange
3. Dark Orange
5. Black primer

Present in the debris removed from Q98 and Q99 were numerous particles of single layered paint-like samples and several multi-layered chips. Based upon the comparison examinations conducted, the paint samples from Q98 and Q99 could not be associated with Q101, Q103, or Q107, however, the samples from Q98 and Q99 could not be eliminated as having originated from the sources represented by K1 or K2. The red smears on Q100 and Q102 were microscopically consistent with Q106. The blue samples Q104 and Q105 were compared and dissociated by microchemical tests. No source could be determined for Q104.

### EXPLOSIVE COMPOSITION:

60723031

A physical and instrumental examination of residues removed from specimens Q1 through Q6, and Q8 did not detect any traces of nitroglycerine (NG), ethylene glycol dinitrate (EGDN), pentaerythritol tetranitrate (PETN), cyclotrimethylenetrinitramine (RDX), cyclotetramethylenetetranitramine (HMX), dinitrotoluene (DNT), trinitrotoluene (TNT), or trinitrophenylmethylnitramine (TETRYL). The specimens were not tested for the presence of any inorganic explosives due to this categories high water solubility.

A physical and instrumental analysis of specimen Q7 identified its major component to be sucrose with a minor component ibuprofen. The drug ibuprofen can be obtained over the counter in the United States in such products as Motrin and typically functions as an anti-inflammatory agent.

The specimens were examined using all or some of the following techniques: optical microscopy, chemical spot tests, gas chromatography with chemiluminescence detection, fourier transform infrared spectroscopy, x-ray powder diffraction, and liquid chromatography with mass spectrometry detection.

60727032

A physical and instrumental examination of residues removed from specimens Q9 through Q12 did not detect any traces of nitroglycerine (NG), ethylene glycol dinitrate (EGDN), pentaerythritol tetranitrate (PETN), cyclotrimethylenetrinitramine (RDX), cyclotetramethylenetetranitramine (HMX), dinitrotoluene (DNT), trinitrotoluene (TNT), or trinitrophenylmethylnitramine (TETRYL). The specimens were not tested for the presence of any inorganic explosives due to this categories high water solubility.

The specimens were examined using all or some of the following techniques: optical microscopy, chemical spot tests, gas chromatography with chemiluminescence detection, and liquid chromatography with mass spectrometry detection.

60728031

A physical and instrumental examination of residues removed from specimen Q15 (your item 17) identified the presence of cyclotrimethylenetrinitramine (RDX) and pentaerythritol tetranitrate (PETN) high explosive. The source of these materials is not known since live explosives were reportedly used on the aircraft for training purposes prior to this event.

A physical and instrumental examination of residues removed from specimens Q13, Q14 and Q16 did not detect any traces of nitroglycerine (NG), ethylene glycol dinitrate (EGDN), pentaerythritol tetranitrate (PETN), dinitrotoluene (DNT), cyclotrimethylenetrinitramine (RDX), trinitrotoluene (TNT), cyclotetramethylenetetranitramine (HMX), or trinitrophenylmethylnitramine (TETRYL). The specimens were not tested for the presence of any inorganic explosives because of their high water solubility.

The specimens were examined using all or some of the following techniques: optical microscopy, chemical spot tests, gas chromatography with chemiluminescence detection, ion mobility spectrometry, gas chromatography with mass spectrometry detection, and liquid chromatography with mass spectrometry detection.

60804032

A physical and instrumental examination of residues removed from specimen Q82 did not detect any traces of nitroglycerine (NG), ethylene glycol dinitrate (EGDN), pentaerythritol tetranitrate (PETN), dinitrotoluene (DNT), cyclotrimethylenetrinitramine (RDX), trinitrotoluene (TNT), cyclotetramethylenetetranitramine (HMX), or trinitrophenylmethylnitramine (TETRYL). The specimen was not tested for the presence of any inorganic explosives because of their high water solubility.

The specimen was examined using the following techniques: optical microscopy, gas chromatography with chemiluminescence detection, ion mobility spectrometry, gas chromatography with mass spectrometry detection, and liquid chromatography with mass spectrometry detection.

60817031

A physical and instrumental examination of residues removed from specimen Q85 identified the presence of nitroglycerine high explosive. The source of this material is not known since live explosives were reportedly used on the aircraft for training purposes prior to this event. Further examinations of the residue did not detect any traces of ethylene glycol dinitrate (EGDN), pentaerythritol tetranitrate (PETN), dinitrotoluene (DNT), cyclotrimethylenetrinitramine (RDX), trinitrotoluene (TNT), cyclotetramethylenetetranitramine (HMX), or trinitrophenylmethylnitramine (TETRYL). The specimen was not tested for the presence of any inorganic explosives because of their high water solubility.

The specimen was examined using the following techniques: optical microscopy, gas chromatography with chemiluminescence detection, ion mobility spectrometry, gas chromatography with mass spectrometry detection, and liquid chromatography with mass spectrometry detection.

60818061

A physical and instrumental examination of residues removed from specimen Q86 did not detect any traces of nitroglycerine (NG), ethylene glycol dinitrate (EGDN), pentaerythritol tetranitrate (PETN), dinitrotoluene (DNT), cyclotrimethylenetrinitramine (RDX), trinitrotoluene (TNT), cyclotetramethylenetetranitramine (HMX), or trinitrophenylmethylnitramine (TETRYL). The specimen was not tested for the presence of any inorganic explosives because of their high water solubility.

The specimen was examined using the following techniques: optical microscopy, gas chromatography with chemiluminescence detection, ion mobility spectrometry, gas chromatography with mass spectrometry detection, and liquid chromatography with mass spectrometry detection.

60830005

A physical and instrumental examination of residues removed from specimen Q87 (your item 34) identified the presence of cyclotrimethylenetrinitramine (RDX) high explosive. The source of this material is not known since live explosives were reportedly used on the aircraft for training purposes prior to this event. Further examinations of the residue did not detect any traces of nitroglycerine (NG), ethylene glycol dinitrate (EGDN), pentaerythritol tetranitrate (PETN), dinitrotoluene (DNT), trinitrotoluene (TNT), cyclotetramethylenetetranitramine (HMX), or trinitrophenylmethylnitramine (TETRYL). The specimen was not tested for the presence of any inorganic explosives because of their high water solubility.

The specimen was examined using the following techniques: optical microscopy, gas chromatography with chemiluminescence detection, ion mobility spectrometry, gas chromatography with mass spectrometry detection, and liquid chromatography with mass spectrometry detection.

60909001

A physical and instrumental examination of residues removed from specimens Q88 through Q93 did not detect any traces of nitroglycerine (NG), ethylene glycol dinitrate (EGDN), pentaerythritol tetranitrate (PETN), dinitrotoluene (DNT), cyclotrimethylenetrinitramine (RDX), trinitrotoluene (TNT), cyclotetramethylenetetranitramine (HMX), or trinitrophenylmethylnitramine (TETRYL). The specimens were not tested for the presence of any inorganic explosives because of their high water solubility.

The specimens were examined using the following techniques: optical microscopy, gas chromatography with chemiluminescence detection, ion mobility spectrometry, and liquid chromatography with mass spectrometry detection.

60912038

A physical and instrumental examination of residues removed from specimen Q94 did not detect any traces of nitroglycerine (NG), ethylene glycol dinitrate (EGDN), pentaerythritol tetranitrate (PETN), dinitrotoluene (DNT), cyclotrimethylenetrinitramine (RDX), trinitrotoluene (TNT), cyclotetramethylenetetranitramine (HMX), or trinitrophenylmethylnitramine (TETRYL). The specimen was not tested for the presence of any inorganic explosives because of their high water solubility.

The specimen was examined using the following techniques: optical microscopy, gas chromatography with chemiluminescence detection, ion mobility spectrometry, gas chromatography with mass spectrometry detection, and liquid chromatography with mass spectrometry detection.

61007055

A physical and instrumental examination of residues removed from specimens Q95 and Q96 did not detect any traces of nitroglycerine (NG), ethylene glycol dinitrate (EGDN), pentaerythritol tetranitrate (PETN), dinitrotoluene (DNT), cyclotrimethylenetrinitramine (RDX), or trinitrotoluene (TNT). The specimens were not tested for the presence of any inorganic explosives due to their high water solubility.

The specimens were examined using following techniques: optical microscopy, chemical spot tests, and gas chromatography with chemiluminescence detection.

Please call the Materials and Devices Unit, (202) 324-██████ if you have any questions concerning the results of examinations in this case.

b7c

(12/31/1995)

# FEDERAL BUREAU OF INVESTIGATION

Precedence: IMMEDIATE

Date: 03/14/1997

To: DIRECTOR, FBI

From: ADIC, NEW YORK

Approved By: Kallstrom James K

Drafted By: [REDACTED] jjr

Case ID #: 265-NY- (Pending)

Title: CRASH OF TWA FLIGHT 800  
JULY 17, 1996

Synopsis: To provide FBIHQ with ATF report on this matter.

Enclosures: Enclosed is an original and one copy of a "Statement of ATF Certified Fire Investigator", I/N 63122 96 0060 Z, dated January 20, 1997.

Details: The enclosed report was provided to ADIC Kallstrom by NY ATF SAC Ballas on 3/13/97. It contains opinions regarding the sequence in which the aircraft came apart as well as cause of the crash. By way of background, NY notes that, at the outset of the TWA investigation, ATF agreed that, since the FBI is the lead criminal investigative agency for TWA Flight 800, they would not produce any independent reports regarding the investigation.

The publication of this unsolicited, premature report violates the agreement made by ATF regarding their participation in the TWA investigation. ADIC, NY believes ATF's preparation of a report providing an opinion regarding the cause of this tragedy while knowing full well, among other things, that the investigation is continuing; that parts of the aircraft are still being recovered; that substantial parts of the side walls of the center fuel tank have not been recovered or identified and potentially significant pieces, i.e., the scavenger pump, have not been recovered; that the reconstruction of the aircraft is ongoing; and that other testing, i.e., metallurgical examinations, China Lake missile testing, is planned or ongoing is unprofessional and reprehensible. ATF has produced a report which, it is fair to say, attributes the crash to a mechanical failure before the NTSB has completed its own inquiry or issued a report. If the cause of the crash is determined to be mechanical, ATF may find itself in conflict with the analysis of NTSB, the agency charged by law with responsibility for aircraft accident investigations. In addition, if in the end the evidence indicates that the crash resulted from a criminal act, the ATF report, prepared without benefit of a complete investigation or access to all the information available, will no doubt be discoverable as Brady material.

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 4-14-00 BY SP5/SC/NA

284

To: DIRECTOR, FBI From: ADIC, NEW YORK  
Re: 265-NY-, 03/1997

ADIC, New York is very concerned about the preparation of this report and the basis for the opinions expressed therein. ADIC request that the FBI Laboratory immediately review this report and obtain from ATF all information, including copies of any interviews conducted by ATF, which were relied upon to produce the opinions expressed therein. ADIC, New York also strongly recommends that the Director express to the highest levels of the ATF, the FBI's displeasure over this extraordinary breach of investigative protocol.

New York will provide copies to NTSB and the USA, EDNY, directly.

♦♦

U.S. Department of Justice



Federal Bureau of Investigation

In Reply, Please Refer to  
File No.

26 Federal Plaza  
New York, New York 10278  
March 17, 1997

Mr. James E. Hall  
Chairman  
National Transportation Safety Board  
490 L'Enfant Plaza East, S.W.  
Washington, D.C. 20594

Dear Mr. Chairman,

Enclosed please find one copy of a "Statement of ATF Certified Fire Investigator", I/N 63122 96 0060 Z, dated January 20, 1997. This report was provided to me on March 13, 1997 by the ATF Special Agent in Charge in New York.

The publication of this unsolicited and premature report by the ATF violates the agreement made by them regarding their participation in this investigation. I believe it is unfortunate that ATF, for reasons that are unknown to me, chose to prepare a report expressing an opinion regarding the cause of this tragedy before the investigation has been completed. It is an extraordinary violation of investigative protocol.

I have provided the original and a copy to FBIHQ and requested that the FBI Laboratory review the information in the report and contact ATF to obtain all information they relied upon to produce this document. I have also asked Director Freeh to express the FBI's displeasure regarding this incident to the highest levels of the ATF.

Sincerely,

James K. Kallstrom  
Assistant Director in Charge

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 4-14-00 BY SP5/SJA/AL

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XXXXXX  
XXXXXX

FEDERAL BUREAU OF INVESTIGATION  
FOIPA  
DELETED PAGE INFORMATION SHEET

26 Page(s) withheld entirely at this location in the file. One or more of the following statements, where indicated, explain this deletion.

☐ Deletions were made pursuant to the exemptions indicated below with no segregable material available for release to you.

Section 552

Section 552a

☐ (b)(1)

☐ (b)(7)(A)

☐ (d)(5)

☐ (b)(2)

☐ (b)(7)(B)

☐ (j)(2)

☐ (b)(3)

☐ (b)(7)(C)

☐ (k)(1)

☐ (b)(7)(D)

☐ (k)(2)

☐ (b)(7)(E)

☐ (k)(3)

☐ (b)(7)(F)

☐ (k)(4)

☐ (b)(4)

☐ (b)(8)

☐ (k)(5)

☐ (b)(5)

☐ (b)(9)

☐ (k)(6)

☐ (b)(6)

☐ (k)(7)

☐ Information pertained only to a third party with no reference to the subject of your request or the subject of your request is listed in the title only.

☒ Documents originated with another Government agency(ies). These documents were referred to that agency(ies) for review and direct response to you.

\_\_\_\_\_ Pages contain information furnished by another Government agency(ies). You will be advised by the FBI as to the releasability of this information following our consultation with the other agency(ies).

\_\_\_\_\_ Page(s) withheld inasmuch as a final release determination has not been made. You will be advised as to the disposition at a later date.

\_\_\_\_\_ Pages were not considered for release as they are duplicative of \_\_\_\_\_

\_\_\_\_\_ Page(s) withheld for the following reason(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

☒ The following number is to be used for reference regarding these pages:

265A-NY-259028 - SUB FF2, LAB 15 Document dated January 20, 1997

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X Deleted Page(s) X  
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XXXXXX

# FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE

Date: 04/18/1997

To: New York

Attn: SSA [REDACTED]

b7C

From: New York

FBI Command Post, Calverton, New York

Contact: SA [REDACTED] (516) 369-3313

Approved By: [REDACTED]

Drafted By: [REDACTED] bsm

Case ID #: 265A-NY-259028 (Pending)

Title: UNSUB(S);  
EXPLOSION OF TWA 800;  
7/17/96  
AOT-IT-EOD;  
OO: NEW YORK

Synopsis: Transfer of custody of evidence items 90 (1B-421) and 91 (1B-422) to NTSB for testing.

Details: Two FBI evidence items were released from the FBI Command Post, Calverton, New York to [REDACTED] on 4/18/1997 for metallurgical analysis at NTSB Materials Laboratory, 490 L'Enfant Plaza East, Southwest-Room 5140, Washington DC, office telephone [REDACTED]. The items were:

b7C

Item 90 (1B-421): One piece of 4" x 4" metal cut from pressure deck piece LF-137, FBI number 8/26/96-36, located at fuselage station 1444 and left buttock line 110. The piece was cut to enable testing on a 1/8" diameter penetration.

(X)  
TC

Item 91 (1B-422): One piece of 4" x 6" metal cut from a fuselage piece identified by FBI number 9/24/96-16, located near fuselage station 1700, stringer 36 right. The piece was cut to enable testing on a 1/8" diameter penetration.

♦♦ ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 4-14-00 BY SP5/3/21/2

265A-NY-259028-SUB [REDACTED] -14

CC: SSA [REDACTED]

SSRA [REDACTED]

SA [REDACTED]

I-46 Rotor

UPLOADED

APR 24 1998

b7C

WITH TEXT

WITHOUT TEXT

BY

DATE

5/5/97

90-11-ec.wpd

FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

b7c

Date April 10, 1997

ADIC, NEW YORK

FILE NO. 265A-NY-259028

Lab No. 265A-NY-259028

H

Re: Your communication dated March 24, 1997

File No. 265A-NY-259028

UNSUB(S)  
EXPLOSION OF TWA FLIGHT 800;  
JULY 17, 1996  
ACT-11 EJD

Specimens received March 25, 1997

Specimens:

Q132 Five (5) photo negative strips from [REDACTED]

b7c

The results of the photographic examination included in this report.

Specimen Q132 is returned herewith. Photos produced during this examination are being returned under separate cover.

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 4-14-00 BY SP5/SC/NA

265A-NY-259028-SUB LAB

SEARCHED	INDEXED
SERIALIZED	FILED
AUG 20 1998	

BEST COPY AVAILABLE

Enclosure (1)

Received by  
FAX from FBIHQ  
8/25/97

RWVB/rwvb (5)

b7c

This Report Is Furnished For Official Use Only



FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

To: ADIC, NEW YORK

Date: April 10, 1997

FBI File No. 265A-NY-259028

Lab No. 70325037 S/I AD HD

Reference: Your communication dated March 14, 1997

Your No. 265A-NY-259028

Re: UNSUB(S)  
EXPLOSION OF TWA FLIGHT 800;  
JULY 17, 1996  
AOT-IT-EID

Specimens received: March 25, 1997

Specimens:

Q132 Five (5) photo negative strips from [REDACTED]

The results of the photographic examinations are included in this report.

Specimen Q132 is returned herewith. Photographs produced during this examination are being returned under separate cover.

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 4-14-00 BY SP5 JSC/PVL

Enclosure (1)

265A-NY-259028-SUB LAB

SEARCHED	INDEXED
SERIALIZED	FILED
APR 15 1997	
FBI - NEW YORK	

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FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

Report of Examination

Examiner Name: [REDACTED]

Date: April 10, 1997 **b7c**

Unit: Special Photographic

Phone No.: [REDACTED]

FBI File No.: 265A-NY-259028

Lab No.: 70325037 S/I AD HD

Results of Examinations:

The (Q132) film negatives were examined to locate unusual patterns in those portions of the negatives depicting the sky. The presence of scratches, dust, and other debris was noted on the negatives. A horizontal streak observed on one frame, #4A, was examined microscopically and found to be debris on the film surface. Conventional cleaning of the film removed this debris.

FAX/PACKAGE COPY

FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

Date: April 10, 1997

To: ADIC, NEW YORK

FBI File No. 265A-NY-259028

Lab No. 70325037 S/I AD HD

Reference: Your communication dated March 14, 1997

Your No. 265A-NY-259028

Re: UNSUB(S)  
EXPLOSION OF TWA FLIGHT 800;  
JULY 17, 1996  
AOT-IT-EID

Specimens received: March 25, 1997

## Specimens:

Q132 Five (5) photo negative strips from [REDACTED] b7c

The results of the photographic examinations are included in this report.

Specimen Q132 is returned herewith. Photographs produced during this examination are being returned under separate cover.

Enclosure (1)

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DATE 4-14-00 BY SP5 /SC/PVA

265A-NY-259028-SUB 4b 16

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page 2

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# FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE

Date: 05/09/1997

To: Laboratory

Attn: SSA [REDACTED]  
Room: 3971

b7C

From: New York

FBI Command Post, Calverton, New York

Contact: SA [REDACTED] (516) 369-3313

Approved By: [REDACTED] *KJM*

Drafted By: [REDACTED]

bsm

Case ID #: 265A-NY-259028 (Pending)

Title: UNSUB(S);  
EXPLOSION OF TWA 800;  
7/17/96  
AOT-IT-EOD  
OO: NEW YORK

Synopsis: Submits eighteen evidence items, 1B435-1B452, to the FBI Lab for chemical residue tests.

Package Copy: Being forwarded under separate cover are eighteen New York Office evidence items 1B435 through 1B452.

Details: As the Laboratory Division is aware, numerous swabs of the wreckage of TWA Flight 800 were tested by the FBI for the presence of high explosive residue. The vast majority of these swabs were taken from the interior cabin area. To date, three confirmations of explosive chemicals were identified. From the standpoint of thoroughness, however, the tested sites did not represent all regions of the aircraft. Since the cause of the crash is currently unidentified, it is possible that undiscovered chemical evidence is present at an untested region, particularly around burned areas.

As desirable as testing the entirety of the wreckage is to investigators, it is unrealistic. The next best approach, then, is to test selected sites in each of the regions. Therefore, eighteen items were excised from sites that were nearby or subjected to apparent burning and that account for

CC: SAC John O'Neill

UPLOADED

ASAC Charles Domros

SSA [REDACTED] WITH/TEXT *✓*

SSA [REDACTED] WITH/OUTTEXT

SSRA [REDACTED] *OB*

SA [REDACTED] DATE *6-12-97*

Det [REDACTED]

I-46 Rotor

265A-NY-259028-*LAB-17*

JUN 6 1998

b7C

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DATE 4-14-00 BY SP5 JCL/PIN

To: Laboratory From: New York  
Re: 265A-NY-2590, 05/09/1997

all regions of the aircraft. These items are being submitted to the FBI Laboratory for chemical analysis to ensure that residue testing was conducted representing most of the main structural areas of the airplane, e.g. both wings and fairing material from the belly. The items are:

- 1) 1B-435; Piece of composite material measuring approximately 3.5" x 2.25" having a charred appearance;
- 2) 1B-436; Piece of composite material measuring approximately 1" x 1.25", honeycomb construction;
- 3) 1B-437; Piece of composite material measuring approximately 2" x 4" having a charred appearance;
- 4) 1B-438; Piece of composite material measuring approximately 1.5" x 2.5" with honeycomb construction and having a charred appearance;
- 5) 1B-439; Piece of fabric-like material measuring approximately 2" x 3" and having a charred appearance;
- 6) 1B-440; Piece of fabric-like material measuring approximately 2" x 4" and having a charred appearance;
- 7) 1B-441; Piece of composite honeycomb material measuring approximately 1.5" x 2" and having a charred appearance;
- 8) 1B-442; Four pieces of a woven material that were adjacent layers and have a charred appearance;
- 9) 1B-443; Piece of composite material measuring approximately 4" x 5", includes honeycomb structure and has a charred appearance;
- 10) 1B-444; Piece of woven, layered material measuring approximately 1.5" x 1.25" with a charred appearance;
- 11) 1B-445; Piece of woven material measuring approximately 2.5" x 5.25" with a charred appearance;
- 12) 1B-446; Piece of composite material measuring approximately .75" x 2.25" with a honeycomb structure and a charred appearance;
- 13) 1B-447; Piece of woven material measuring approximately 1.75" x 2" with a charred appearance;
- 14) 1B-448; Piece of "feathered" metal measuring approximately .75" long;

To: Laboratory From: New York  
Re: 265A-NY-2590, 05/09/1997

15) 1B-449; Piece consisting of a white elastic substance adhering to metal foil that measures approximately 1" x .75";

16) 1B-450; Piece of sheet metal, apparently sooted, measuring approximately 2.5" x 1.5";

17) 1B-451; Piece of woven material measuring approximately 1.5" x 2" with a charred appearance;

18) 1B-452; Two chemical swabs taken from the interior of a titanium alloy engine bleed air duct.

LEAD (s):

Set Lead 1:

LABORATORY

FBI Laboratory Chemistry Unit is requested to conduct necessary examinations for the presence of explosive residue and volatile accelerant. Please provide a laboratory report of findings to the New York case squad, I-46, and:

FBI Command Post  
Attn: SSRA [REDACTED]  
Naval Weapons Industrial Reserve Plant  
4026 Grumman Blvd.  
Calverton, NY 11933

b7c

♦♦

# FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE

Date: 05/22/1997

To: Laboratory

Attn: SSA [REDACTED]  
Room 3971

b7c

From: New York

FBI Command Post, Calverton

Contact: SA [REDACTED] (516) 369-3313

Approved By: [REDACTED] KDM

Drafted By: [REDACTED] bsm

Case ID #: 265A-NY-259028 (Pending)

Title: UNSUB(S);  
EXPLOSION OF TWA 800;  
7/17/96  
AOT-IT-EOD  
OO: NEW YORK

Synopsis: Submits four evidence items, 1B465-1B468, to the FBI Lab for chemical residue tests.

Package Copy: Being forwarded under separate cover are four New York office evidence items 1B465 through 1B468.

Details: The cause of the TWA Flight 800 crash is still unknown. All possibilities with regard to criminal involvement are being pursued by investigators. Part and parcel to this approach is chemical testing of all regions around the aircraft for explosive or accelerant residue. Sufficient representational testing will allay questions concerning the presence or lack of such residue.

The four evidence items referenced herein are from diplomatic pouches that were carried in the aft cargo bay. The items are:

- 1) 1B-465 (Item 118); Piece of woven fabric measuring approximately 1" x 1" with a charred appearance;
- 2) 1B-466 (Item 119); Piece of cardboard having a charred appearance;

CC: SAC John O'Neill  
ASAC Charles Domroe  
SSA [REDACTED]  
SSA [REDACTED]  
SSRA [REDACTED]  
SA [REDACTED]  
Det [REDACTED]  
M-46 Rotor

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To: Laboratory from: New York  
Re: 265A-NY-2590, 05/22/1997

- 3) 1B-467 (Item 120); Piece of woven fabric measuring approximately 1.75" x 1.5" with a charred appearance;
- 4) 1B-468 (Item 121); Two pieces of woven fabric that were adjacent layers measuring approximately 1" x 1" with a charred appearance.

LEAD (s):

Set Lead 1:

LABORATORY

FBI Laboratory Chemistry Unit is requested to conduct necessary examinations for the presence of explosive residue and volatile accelerant. Please provide a laboratory report of findings to the New York case squad, I-46, and:

FBI Command Post  
Attn: SSRA [REDACTED]  
Naval Weapons Industrial Reserve Plant  
4026 Grumman Blvd.  
Calverton, NY 11933

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FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

To: ADIC, New York

Date: May 13, 1997

FBI File No. 265A-NY-259028

Lab No. 70207064 S AD HK HM  
70224039 S AD HK HM

Reference: Communication dated February 6 and 19, 1997

Your No. 265A-NY-259028

Re: UNSUBS;  
EXPLOSION OF TWA FLIGHT 800;  
AOT-IT-EOD

Specimens received: February 7 and 24, 1997

Specimens received February 7, 1997 under cover of communication dated February 6, 1997 (70207064 S AD HK HM):

Q128 One (1) piece of splatter material (your item #MM1  
CW-504 LBL-104)

Q129 One (1) piece of splatter material (your item #MM3  
CW-504 LBL-106.72)

Q130 One (1) piece of splatter material (your item #MM4  
CW-504 LBL-106)

Q131 One (1) piece of splatter material (your item #MM5  
CW-114)

NE8 One (1) blade

Page 1

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Specimens received February 24, 1997 under cover of communication dated February 19, 1997 (70224039 S AD HK.HM):

- K3 One (1) sample of fiberglass like material taken from floor board (your item #57-1)
- K4 One (1) sample of foam like material taken from floor board (your item #57-2)
- K5 One (1) sample of fiberglass like material taken from air duct (your item #59-1)
- K6 One (1) sample of foam like material taken from air duct (your item #59-2)
- K7 One (1) sample of fiberglass like material taken from air duct (your item #61-1)
- K8 One (1) sample of foam like material taken from air duct (your item #61-2)

GENERAL INFORMATION:

This report provides the results of examinations conducted in the Trace Evidence Unit and the Chemistry Unit. For a complete listing of specimens and the results of previous examinations conducted please refer to previous report dated 3/26/97 (Laboratory ##60723031 S AD AR RU, 60730006 S AD RU, 60730007 S AD RU, 60806002 S AD ZG, 60909001 S AD AR RU, 61118011 S AD HJ, 61127057 S AD HK, 60727032 S AD AR, 60728031 S AD AR, 60804032 S AD AR, 60817031 S AD AR, 60818061 S AD AR, 60830005 S AD AR, 60912038 S AD AR, 61007055 S AD AR).



FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

Report of Examination

Examiner Name: [REDACTED]

Date: 03/31/97

b7c

Unit: Chemistry

Phone No.: [REDACTED]

FBI File No.: 265A-NY-259028

Lab No.: 70207064 S AD HK  
70224039 S AD HK

Results of Examinations:

Specimens Q128 through Q131 (FBI Laboratory #70207064) and specimens K3 through K8 (FBI Laboratory #70224039) were examined microscopically. Specimens Q128 through Q131 and specimens K6 and K8 were further examined instrumentally with Pyrolysis-Gas Chromatography/Mass Spectrometry and Fourier Transform Infrared Spectroscopy. Based upon the comparison examinations conducted, specimens Q128 through Q131 are consistent with having originated from the sources represented by K6 and K8, or a similar source.

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DATE 4-13-00 BY SP5/SC/PMU



FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

Report of Examination

Examiner Name: [REDACTED] mCP

Date: 3/14/97

b7c

Unit: Trace Evidence Unit

Phone No.: [REDACTED]

FBI File No.: 265A-NY-259028

Lab No.: 70207064 S AD HK HM  
70224039 S AD HK HM

Results of Examinations:

Specimens K3, K5, K6 and K7 (70224039) ostensibly represent construction products that utilize fiber glass fabrics. These fabrics generally consist of woven and non-woven bundles of continuous-filament glass fibers. Specimens Q128 through Q131 (70207064) also contain continuous-filament glass fibers, but they cannot be specifically associated with specimens K3, K5, K6, and K7. The small size, limited amounts, and the altered and adulterated nature of specimens Q128 through Q131 preclude any further comparison.

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(12/31/1995)

FEDERAL BUREAU OF INVESTIGATION

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Precedence: ROUTINE

Date: 08/07/1997

To: New York

Attn: SSA [REDACTED] b7C

From: New York

FBI Command Post, Calverton, New York

Contact: [REDACTED] 516-369-3313

Approved By: [REDACTED] M

Drafted By: [REDACTED]:sab

Case ID #: 265A-NY-259028 (Pending)

Title: UNSUB(S);  
EXPLOSION OF TWA FLIGHT 800;  
JULY 17, 1996;  
AOT-IT-EOD

Synopsis: Custody transfer of a part of evidence item 92 (1B-423) to the Defense Intelligence Agency (DIA) for testing.

Details: One FBI evidence item was released from the FBI Command Post, Calverton, New York to [REDACTED] b7C  
[REDACTED] Redstone Arsenal, Huntsville, Alabama 35898, [REDACTED]  
[REDACTED] on 8/07/1997 for analysis. The item--a sliver of metal polished and mounted in a clear resin cylinder--is one of two pieces comprising item 92 (1B-423).

CC: SSA [REDACTED]  
SSRA [REDACTED]  
SA [REDACTED]  
Det [REDACTED]  
I-46 Rotor

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BY AB  
DATE 9-3-97

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FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

1- ~~SECRET~~ b7c

ASAC, New York

Re April 25, 1997

FBI File No. 265A-NY-259028

Lab No. 61114052 S AD HK  
70207064 S AD HK  
70224029 S AD HK

Your communication dated February 6 and 18, 1997.

265A-NY-259028

RE:

CRASH OF TWA FLIGHT 800;

LABORATORY

February 7 and 24, 1997

Received February 7, 1997 under cover of communication  
February 7, 1997 (70207064 S AD HK):

One piece of splatter material (your item #MM1 CW-504  
LBL-104)

One piece of splatter material (your item #MM3 CW-504  
LBL-106,72)

One piece of splatter material (your item #MM4 CW-504  
LBL-106,72)

One piece of splatter material (your item #MM5 CW-  
LBL-106,72)

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Specimens received February 24, 1997 under cover of communication dated February 19, 1997 (70224039 S AD HK):

- K3 One sample of fiberglass like material taken from floor board (your item #57-1)
- K4 One sample of foam like material taken from floor board (your item #57-2)
- K5 One sample of fiberglass like material taken from air duct (your item #59-1)
- K6 One sample of foam like material taken from air duct (your item #59-2)
- K7 One sample of fiberglass like material taken from air duct (your item #61-1)
- K8 One sample of foam like material taken from air duct (your item #61-2)

Results of Examination:

GENERAL INFORMATION:

This report provides the results of examinations conducted in the Chemistry Unit on specimens Q110 - Q116, Q128 - Q131, K3 - K8.

For a complete listing of specimens and the results of previous examinations please refer to previous report dated 3/26/97 (Lab. #60723031 S AD AR, 60730006 S AD RU, 60730007 S AD RU, 60806002 S AD ZG, 60909001 S AD AR RU, 61118011 S AD HJ, 61127057 S AD HK, 60727032 S AD AR, 60728031 S AD AR, 60804032 S AD AR, 60817031 S AD AR, 60818061 S AD AR, 60830005 S AD AR, 60912038 S AD AR, 61007055 S AD AR).

Examinations are continuing on Q25 - Q81 and Q109 in the Special Photography Unit. You will be advised of the results of these examinations in a separate report.

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CHEMICAL ANALYSES:

Specimens Q110 - Q116 were examined microscopically. Red material and amber material from specimen Q110 and red material from specimen Q111 were further examined instrumentally, including Fourier Transform Infrared Spectroscopy, Pyrolysis-Gas Chromatography/Mass Spectrometry, and Scanning Electron Microscopy. The materials from Q110 and Q111 are consistent with a chlorinated, polymeric material commonly used as a contact adhesive. Based upon the comparison examinations conducted, with noted differences, specimens Q110 - Q116 are consistent with a common origin. b1

Specimens Q128 - Q131 (FBI Laboratory #70207064) and specimens K3 - K8 (FBI Laboratory #70224039) were examined microscopically. Specimens Q128 - Q131 and specimens K6 and K8 were further examined instrumentally with Pyrolysis-Gas Chromatography/Mass Spectrometry and Fourier Transform Infrared Spectroscopy. Based upon the comparison examinations conducted, specimens Q128 - Q131 are consistent with having originated from the sources represented by K6 and K8, or a similar source.

Specimens K3, K5, K6 and K7 (70224039) ostensibly represent construction products that utilize fiber glass fabrics. These fabrics generally consist of woven and non-woven bundles of continuous-filament glass fibers. Specimens Q128 - Q131 (70207064) also contain continuous-filament glass fibers, but they cannot be specifically associated with specimens K3, K5, K6 and K7. The small size, limited amounts, and the altered and adulterated nature of specimens Q128 - Q131 preclude any further comparison.

DISPOSITION OF SPECIMENS:

The submitted specimens referenced in the above analyses will be returned to your office under separate cover via registered mail or equivalent.

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To: SSA [REDACTED]  
Contracting Officer Technical Representative  
Room 3346 JEH FBI Building  
935 Pennsylvania Avenue, NW  
Washington, D.C. 20535

From: [REDACTED]

b7c

13 July 1997

RE: STATUS REPORT - REVIEW OF PRIORITY 2 AND 3 PENETRATIONS

As part of the TWA800 metallurgical review, I evaluated a series of "priority 2" and "priority 3" penetrations in the fuselage and at other locations in the reconstruction with the assistance and cooperation of [REDACTED] of the New York office of the FBI. This was intended to provide a backup to rankings conducted previously by NTSB personnel as well as to complement the documentation of a series of "priority 1" penetrations already compiled by NTSB and the FBI. For your convenience, the previously developed criteria for identifying a penetration's priority, taken verbatim from the NTSB communication dated 3/7/97 (provided to me by [REDACTED]) are:

b7c

- | Priority | Criteria  |
|----------|---|
| 1        | Penetrations that appeared to be coming from the outside of structure inward with missing material at the point of penetration. Penetrations where a clear direction could not be determined but exhibited a lack of material at the penetration, similar to a "bullet hole".   |
| 2        | Penetrations that appeared to be coming from the outside of the structure inward without any missing material at the point of penetration, i.e., a "flap" or tear of material inward. Penetrations that appear to be coming from the inside of the structure outward with missing material at the point of penetration. |
| 3        | All other penetrations not described in the above priorities but noted in the documentation.  |

My work was initiated during my second on-site period, June 9-13, and was effectively completed during my 3rd on-site period, June 25-27. A complete documentation of my observations is assembled as a spreadsheet in Appendix I. Penetrations already judged a "priority 1" from the prior NTSB work are included in the spreadsheet but I did not re-evaluate those.

Of primary interest may be the fact that additional priority 1 sites were identified. For example, in the fuselage piece at LF-69, two holes, at stations 1265 and 1340, were re-classified to 1 on the basis of a judgement of missing material. Another hole was found at station 1285 to meet the criteria for a "1".

The holes in piece RF-95 were also added; the one at station 920 was included because of an unusual extent of what might be possible melting on the fracture surface. This is shown in Figure 1(B), as photographed by [REDACTED]. The extent of the anomalous region seemed much greater than would be accounted for by a shear plane sectioning through the expected Alclad layer of this material. A more in-depth metallographic analysis would be useful to corroborate whether melting has occurred. The hole

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DATE 1-14-00 BY SP5/SC/PVA

at station 930, on the other hand, was added on the basis of a judgement of missing material here, coupled with the apparent out-to-in direction of penetration.

The remaining additions to the priority 1 list were the 2 clean holes initially observed by [REDACTED] in CW-1106, which our examination corroborated as meeting the priority 1 criteria. **b7C**

My examination of the remaining priority 2 and 3 holes did not lead to any significant changes. In several cases, ratings were altered from the previous listing, typically from 3 to 2, because I may have judged differently whether material was missing or we noted an inconsistency between the numerical rating and the previous observer's remarks, especially with respect to missing material.

Respectfully submitted,

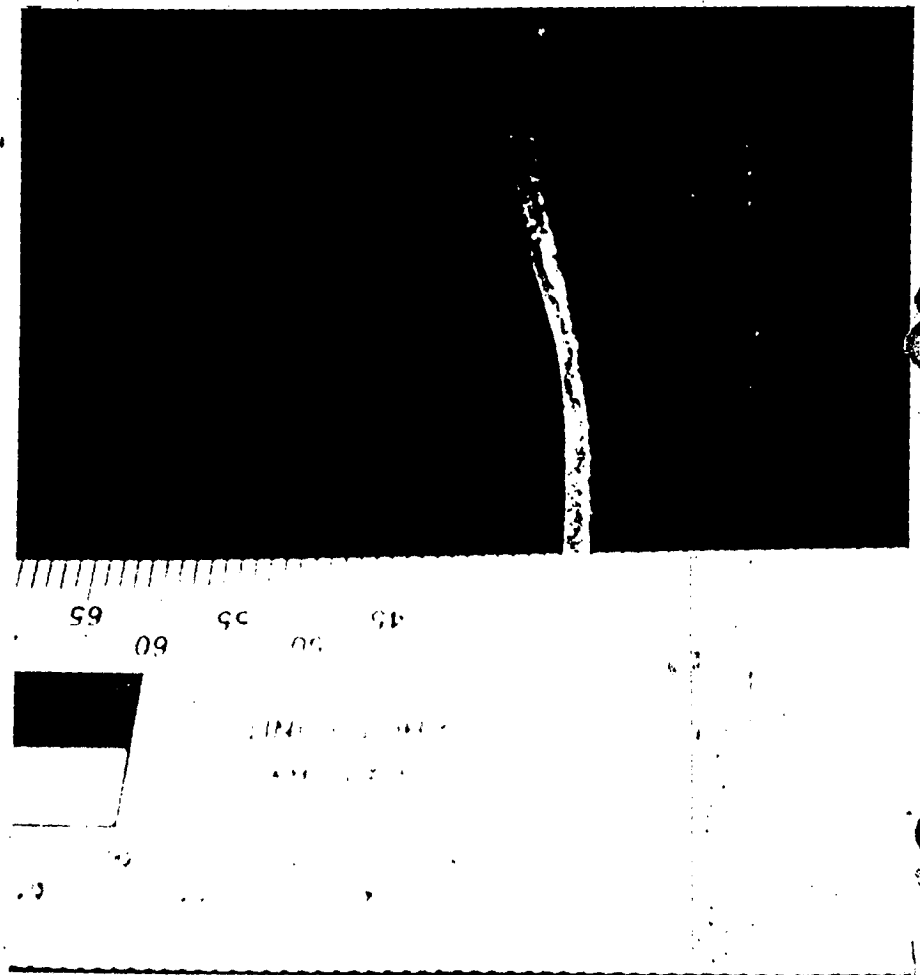
[REDACTED]  
[REDACTED]

**b7C**

cc: SSRA [REDACTED] Calverton.



(A)



(B)

**FIGURE 1 : PHOTO OF REGION AT STATION 920 WITH RE-CLASSIFIED PRIORITY 1 PENETRATION**

A) Overall view near penetration (numbered divisions are 10 mm apart)

B) View of cross-section with shiny material on inboard edge (ruler divisions in mm)

Spreadsheet for Evaluation of Penetration Sites in TWA800 Reconstruction							
Concentrate on sites initially rated priority 2 and 3 by NTSB							
Priority	Criteria						
1	Penetrations that appeared to be coming from the outside of structure inward with missing material at the point of penetration. Penetrations where a clear direction could not be determined but exhibited a lack of material at the penetration, similar to a "bullet hole".						
2	Penetrations that appeared to be coming from the outside of the structure inward without any missing material at the point of penetration, i.e., a "flap" or tear of material inward. Penetrations that appear to be coming from the inside of the structure outward with missing material at the point of penetration.						
3	All other penetrations not described in the above priorities but noted in the documentation. e.g., inside to outside penetration with no metal missing						
	* denotes previously assigned priority 1 by NTSB						
GROUP 1 : FUSELAGE STATIONS 520-1620							
	PIECE	STATION	STRINGER	DIR'N	SIZE	PRIORITY	REMARKS
	RF-19A	920	4R	out-in	2"x1"	2	no missing material;dent at entry surface;2 rust colored marks on entry surface
	LF-6B	780	39-40R	in-out	1.5"x0.5"	2	metal missing; very slight corner tear(petal-like)
	LF-6B	800	39-40R	in-out	2"x2"	3	no metal missing; slant fracture
	LF-22-9	540	40L	in-out	.25" diam	2	flange w/radial tears
	LF-22-11	580	42-43L	in-out	4"x2"	3	tearing, slant fracture
	LF-22-20	600	45-46R	in-out	0.5"x0.5"	3	star-like petal
	LF-22-20	600	45-46R	in-out	.5"x.5"	2	in stiffener behind skin-more damage in stiffener
	LF-22-4	730	43-44R	in-out	10"x4"	2	slant fracture;metal missing
	LF-22-2	680	47L	in-out	2"x1.5"	3	slant fracture
	LF-22-14	600	41L	in-out	2"x1.5"	3	some sawtooth fracture; stiffener behind also fractured; slight petaling
	LF-22-35	550	42L	in-out	2"x1.75"	3	slant fracture
	RF-92	570	34-35R	in-out	1"x0.25"	3	no metal missing
	LF-22-1	660	42L	in-out	3"x0.75"	3	slant fracture w/tear
	LF-22-1	685	44R	in-out	1"x1"	3	slant fracture w/tear
	RF-70	570	41-42R	in-ou	1"x1"	2	slight incipient sawtooth + tear; cracks in fracture surface    penetr'n s as well as flange crack
	LF-22-35	550	44-45L	in-out	.5"x.5"	3	tearing; no metal missing
	LF-20	570	47R	in-out	.75"x1.25"	3	no metal missing
*	LF-12C	820	20L	out-in	.25" diam	1	
	LF-97	920	34-35L	out-in		2	IMPACT CURL
*	LF-5	920	28L	out-in	1.5"x1"	1	INWARD FLAP,LOW VEL HOLE
	LF-70A	930	30L	out-in		2	impact curl
	LF-87B	940	38L	out-in	.75"x.75"	2	no material missing
	LF-70B	950	31L	in-out		3	impact curl

GROUP 1 : FUSELAGE STATIONS 520-1620							
	PIECE	STATION	STRINGER	DIR'N	SIZE	PRIORITY	REMARKS
	LF-87C	955	29-30L	out-in	.25"x1"	2	no material missing
	LF-51	965	34-35L	out-in	.5"x1"	2	no missing material
*	LF-51	965	35-36L	out-in,up	.5"x1"	1	material missing
	LF-51	970	35-36L	out-in	.5"x1"	2	no material missing, tear next to crack
	LF-63	975	29-30L	out-in	.5"x1"	2	no material missing
	LF-87F	985	36L	out-in	.5" diam	2	no material missing
*	LF-38	1250	22-23L	in-out	.25"x.5"	1	mech damage -FB! #66
*	LF-67A	1330	25L	out-in		1	low vel hole FBI #63
reclassified	LF-69	1340	3-4R	out-in	1"x4"	1	tear,missing material at forward edge;petals curled
							down with potential spikes on curled petal; sawtooth fracture on other
							face;impact damage on entry face with 3 skid marks or slight gouges
reclassified	LF-69	1265	5R	out-in	2" diam	1	tear,missing material;beginning sawtooth on fracture surface
we added	LF-69	1285	4-5R	out-in	4"x.5"	1	slant + sawtooth fracture surface; small amount of missing material;
							slight curl downward
we added	LF-69	1290	4-5R	out-in	2"x.5"	2	no missing material; curl down
							approx. 2 foot tear associated with penetration at station 1265
	LF-39A	1380	11-12L	in-out	.5"x4"	3	tear
	LF-54B	1450	28L	in-out	.5"x1.5"	3	no material missing
	LF-45A	1500	28L	in-out	.24"x3"	3	no material missing, rivet
	LF-2	1520	22-23L	in-out	1"x3"	3	no material missing
	LF-2	1525	12-13L	in-out	.25"x1.5"	3	no material missing
	LF-2	1525	10L	out-in	1"x6"	2	no material missing; slight petaling with
							slant fracture; some tearing
	LF-2	1580	13-14L	out-in	2"x2"	2	shiny edge on entry rim & fracture surface
	LF-2	1580	16L	out-in	1"x3-6"	2	moderate curl inboard and forward
	LF-82F	1535	38-39L	in-out	.25" diam	3	rivet head impact, flange tears
	LF-82E	1540	35L	in-out	.5"x1"	2	material missing, flange gear w/sawtooth pattern
	LF-82E	1560	34L	in-out	.5"x1"	3	no material missing
	LF-29	1555	31-32L	in-out	5"x2"	3	no material missing
	LF-29	1560	31-32L	in-out	6"x3"	2	missing material
	LF-29	1560	32-33L	in-out	5"x2"	2	some material missing
	LF-29	1555	32-33L	in-out	5x1.5	3	
	LF-82P	1565	45L	in-out		3	curled edges-shiny features(melting?)
	LF-88B	1575	37L	in-out	.25"x1"	2	material missing, slight flange tear
	LF-82B	1595	40-41L	in-out	.5" diam	3	material missing?
	LF-82B	1610	40-41L	in-out	1" diam	2	material missing
	LF-82C	1600	43L	in-out	1"x2.5"	2	some material missing;thin rim of
							shiny material at forward exit surface
	LF-82T	1510	25-26L	out-in	1.5"x2"	2	a very small amount of material missing
	LF-82K	1615	45L	in-out	1"x2"	3	no material missing; slant fracture
	LF-88M	1840	32L	out-in	1"x2"	2	some material missing?
*	RF-18D	495	35R	in-out	.5" diam	1	low velocity hole, NTSB photo
	RF-18D	490	36-37R	in-out	.5" diam	2	a little material missing
	RF-18C	510	23R	in-out	2"x4"	3	no material missing
	RF-3B	600	23-24R	in-out	.75"x2.5"	3	no material missing
	RF-3C	640	27-28R	in-out	varx3"	3	no material missing; delamination observed

GROUP 1 : FUSELAGE STATIONS 520-1620							
	PIECE	STATION	STRINGER	DIR'N	SIZE	PRIORITY	REMARKS
	RF-3C	645	27R	in-out	.5"	2	radial tears+delamination
	RF-3C	650	27R	in-out	.5"	2	radial tears + delamination
	RF-4	640	4L	out-in	1"x2"	2	no missing material;slant fracture;mechanical damage on outer surface
	RF-4	805	2L	in-out	3"x3.5"	3	tear;no missing material;slight damage on entry surface
	RF-3A	680	42-43R	in-out	1"x2"	2	cracking at ends of hole
	RF-3A	700	42-43R	in-out	1"x2"	2	
	RF-3A	725	41-42R	in-out	3.5"x6"	3	v. slight polish at entrance lip; crack extends to S42
	RF-3A	720	42-43R	in-out	1.5"x2"	3	slight polish at exit; v. slight sawtooth and v. slight inboard curl w/crack running to S43R
	RF-3A	730	42-43R	in-out	.5x1.5"	3	tear
	RF-3F	720	33-34R	in-out	.25" diam	2	sawtooth fracture w/radial tear
	RF-3F	760	28-29R	in-out	.125" diam	3	no material missing
*	RF-1	905	34R	out-in	.5"x.5:	1	low velocity hole; NTSB photo
*	RF-51	930	27-28R	in-out	.25"x.75"	1	partial flap, low velocity hole, FBI #37
we assigned	RF-95	920	36-37R	in-out	10"	1	shiny inboard edge of fracture(melting?) - looks like weld bead; shiny rims could also be smearing of Alclad layer but looks thicker than expected from geometry(assume 5% nominal clad/side);
we assigned	RF-95	930	36-37R	out-in	?	1	missing material; tear at rivet hole extends approx. 3"; some surface abrasion on "entry" surface(& near rivet hole); mostly slant fracture
	RF-37	970	19R	in-out	1" diam	2	slant fracture
	RF-37	980	20-22R	aft	3" diam	2	missing material
	RF-42	1480	16R	out-in	1" diam	2	no material missing
	RF-52C	1500	44-45L	in-out	.25"x1"	2	tear; missing material
*	RF-52A	1520	45R	in-out	.75"x1"	1	low velocity hole, clean; NTSB Lab SEM; FBI # 64
	RF-31	1520	34-35R	out-in	2"x2"	2	no material missing
	RF-52B	1520	46-48L	in-out	12"x14"	3	no material missing
	RF-38	1360	RBL 15	forward	6"x10"	2	material missing; hole under pressure deck
GROUP 2 : OTHER LOCATIONS							
	PIECE	SITE	LOCATION	DIR'N	SIZE	PRIORITY	REMARKS
	UPPER WING SKIN						
	CW-101	r/h end adjacent to SOB W/CW104		n/a	1" diam	n/a	not penetration
	CW-102	fuel vent tube cover		up	1.5"x1.5"	2	inboard hole
	CW-102	fuel vent tube cover		up	2"x1"	3	no material missing
	CW-102	RBL70	SWB 2	?	1"x2"	2	material missing
	LOWER WING SKIN						
	CW-205	Outboard right side at str 6-7		in-out	.75"x3"	1*	lower vel hole,def downward from inside
	CW-205	38" left of C/L, at str 6-7		down	1.5"x2"	3	no material missing;slant fracture
	CW-236	between SWB #2 and S13, RBL 62		down	1"x3"	1*	lower velocity damage, nearby fracture occurred before hole

GROUP 2 : OTHER LOCATIONS									
PIECE	SITE	LOCATION	DIR'N	SIZE	PRIORITY	REMARKS			
FRONT SPAR									
CW-501	LBL 19	14" below upper chord	forward	.375" diam	2	typical slant fracture			
CW-501	LBL 21	13" below upper chord	forward	.5"x1"	2	typical slant fracture			
CW-501	RBL 2	4" above lower chord	up,aft	.5" diam	1*	lower velocity hole			
CW-501	RBL 6	21" below upper chord	forward	2" each	2	3 long slots, NTSB photo;			
						inboard hole had spikes+curl, slant fracture on others			
CW-501	RBL 39	14" above lower chord	aft	.5" diam	1*	partial flap; lower velocity hole;			
						deformation aftward			
CW-502	LBL 48	24" below upper chord	forward	.5"x1"	3	no material missing; slant fracture			
CW-502	LBL 48	12" below upper cord	aft	6"x3"	2	material missing			
CW-502	LBL 35	20" below upper chord	forward	2"x3"	3				
CW-504	LBL 91	20" below upper chord	forward	.5"x2"	2	material missing, slant fracture			
CW-519	RBL 95	16" below upper chord	aft	.5"x2"	3	no material missing, NTSB photo			
CW-519	RBL 77	16" below upper chord	aft,down	.5" diam	1*	lower velocity hole			
CW-519	RBL 95	10" below upper chord	forward,down	.25"x.5"	1*	lower velocity hole			
CW-503	RBL 120	24" above lower chord	?	2"x3"	2	buckled and ripped, material missing;			
						slant fracture, may not be penetr'n,			
CW-515	LBL 76	11" below upper chord	aft	.375"x1.125"	1*	lower velocity hole, deformed afterwards			
RF-37	RBL 110	20" from top	aft	6"x4"	2	combine w/CW519; missing material; mixed slant + sawtooth;			
						curls aft, outboard; no spikes, scuff marks on "entry" surface			
						fracture surface not sooted or smeared;			
SPANWISE BEAM # 3									
CW-601	RBL 100		fwd,out,up	1.5" diam	1*	lower velocity hole, clean fracture, minimal missing mat'l.			
CW-602	RBL 43		aft	1"x3"	2	material missing			
CW-604	LBL 39		forward	.75"x2"	2	material missing			
CW-604	LBL 39		forward	1.5" diam	2	material missing			
SPANWISE BEAM # 2									
CW-702	RBL 87		?	.75" diam	n/a	manufactured hole			
CW-704	RBL 17	adj to lower chord	outboard	1.25"	2	material missing; buckling related			
CW-704	RBL 22		forward	.75" diam	2	material missing, tear at hole			
CW-704	RBL 8		forward	.125" diam	2	material missing			
CW-706	LBL 3	12" above lower chord	forward	.25" diam	2	n/a			
MID-SPAR									
CW-802	LBL 66		aft	3" diam	2	missing material; combines with CW-816 for hole;			
						slant fracture; scalloped entry surface			
REAR SPAR									
CW-1004	LBL 6	near scavenger pump	inbd,fwd	.5" diam	1*	fastener head impact hole;			
						FBI Item #65			
BUTT LINE 0 RIB									
CW-1106	AFT SWB#1	24" below top	outbd,rt	1.5"x1"	2	corrosion, missing material			
CW-1106	AFT SWB#1	16" below top	outbd,rt	2"x.75"	1	clean hole			
CW-1106	AFT SWB #1	19" below top	outbd,lft	.5" diam	1	clean hole, impact at angle			
CW-1106	AFT SWB#1	21" below top	outbd,lft	1"x1"	2	missing material, corrosion			

Precedence: ROUTINE Date: 08/20/1997

To: New York

Attn: SSA [REDACTED] b7c

From: New York

FBI Command Post, Calverton, New York

Contact: SA [REDACTED] (516) 369-3313

Approved By: [REDACTED]

Drafted By: [REDACTED] bsm

Case ID #: 265A-NY-259028 (Pending)

Title: UNSUB(S);  
EXPLOSION OF TWA 800;  
7/17/96  
AOT-IT-EOD;  
OO: NEW YORK

Synopsis: Transfer of custody of evidence item 130  
(1B-529).

Details: FBI evidence item 130 (1B-529) was released from the FBI Command Post, Calverton, New York, to [REDACTED] Materials Science Building 480, Brookhaven National Laboratory, New York, office telephone (516) 369-3313, on 8/20/1997 for analysis. Item 130 is a piece of alloy measuring 1 cm x .5 cm x .5 cm, cut from a compressor blade section marked with FBI evidence number 12-9-96-46. An FD-597 was accomplished and submitted to the evidence file. b7c

[REDACTED] will polish the piece and subject it to x-ray elemental analysis. The composition of this piece will be compared to the composition of FBI item 92 (1B-423), a metal piece of unknown origin, to aid in the identification of item 92. b7c

♦♦

CC: SSA [REDACTED]

SSRA [REDACTED]

SA [REDACTED]

Det [REDACTED]

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HEREIN IS UNCLASSIFIED  
DATE 9-13-00 BY SP5/JC/AM b7c

I-46 Rotor

~~SECRET~~

Precedence: ROUTINE Date: 08/22/1997

To: New York

From: New York

FBI Command Post, Calverton, New York

Contact: [REDACTED] 516-369-3313

Approved By: [REDACTED]

Drafted By: [REDACTED] sab

Case ID #: 265A-NY-259028 (Pending)

Title: UNSUB(S);  
EXPLOSION OF TWA FLIGHT 800;  
JULY 17, 1996;  
AOT-IT-EOD

Synopsis: Transfer of custody of evidence item numbers 137-140 to the Defense Intelligence Agency (DIA) for testing.

Details: Four FBI evidence items were released from the FBI Command Post, Calverton, New York to [REDACTED] Army Missile Command by means of Federal Express (tracking number 1482817910) to [REDACTED] U.S. Army Aviation And Missile Command, Attn: [REDACTED] Redstone Arsenal, Huntsville, Alabama 35898-5247, [REDACTED] on 8/22/1997 for analysis, specifically [REDACTED] (s) Slides will have to be made in order for the analysis to be done and will involve some modification to the items aforementioned. The items sent were as follows:

Item #137 (1B-43) - Labeled "96-5149, FOREIGN MATTER, Exhibit #7, Date (autopsy/seizure) 7/25/96" described as two approximately four (4) grain size fragments of unknown metallic material.

Item #138 (1B-39) - Labeled "96-5155, FOREIGN MATTER, 7/26/96" described as two objects - one object a small "ball bearing" looking silver metallic ball approximately 5/32 of an inch in diameter and the other object and the second object a similar (5/32 inch in diameter) "ball bearing" looking silver metallic ball attached to a small gold colored post (approximately 1/8 of an inch in length) at the end of which were screw threads (approximately 1/16 of an inch in length).

Item #139 (1B-532) - Labeled "1/30/97 1545," S/A PROVINCE, PIECE FOUND IN FAIRING 1/30/97 (initialed) HFH"

4-14-00  
CLASSIFIED BY SP5 JCR/RL derivative  
DECLASSIFY ON: X 1  
215069

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WHERE SHOWN OTHERWISE

~~SECRET~~

described as a non-symmetric "V"-shaped piece of thin unknown material approximately three (3) inches by 1.5 inches.

Item #140 (1B-532) - Labeled "Misc. Debris 8-24-96-7" described as an approximate two (2) to (3) grain sized metallic magnetic fragment.

The items will be

[REDACTED]

b1

(S)

♦♦

XXXXXX  
XXXXXX  
XXXXXXFEDERAL BUREAU OF INVESTIGATION  
FOIPA  
DELETED PAGE INFORMATION SHEET

17 Page(s) withheld entirely at this location in the file. One or more of the following statements, where indicated, explain this deletion.

- ☐ Deletions were made pursuant to the exemptions indicated below with no segregable material available for release to you.

Section 552Section 552a☐ (b)(1)☐ (b)(7)(A)☐ (d)(5)☐ (b)(2)☐ (b)(7)(B)☐ (j)(2)☐ (b)(3)☐ (b)(7)(C)☐ (k)(1)☐ (b)(7)(D)☐ (k)(2)☐ (b)(7)(E)☐ (k)(3)☐ (b)(7)(F)☐ (k)(4)☐ (b)(4)☐ (b)(8)☐ (k)(5)☐ (b)(5)☐ (b)(9)☐ (k)(6)☐ (b)(6)☐ (k)(7)

- ☐ Information pertained only to a third party with no reference to the subject of your request or the subject of your request is listed in the title only.

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- ☒ The following number is to be used for reference regarding these pages:

265A - NY - 259028 - sub FF2, LAB 15 Document dated 8 September 1997

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X Deleted Page(s) X  
X No Duplication Fee X  
X for this page X  
XXXXXXXXXXXXXXXXXXXXXXXXXX  
XXXXXX  
XXXXXX

(06/01/1995)

# FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE

Date: 09/12/97

To: New York

Attn: I-46

From: New York

FBI Command Post, Calverton, New York

Contact: SA [REDACTED] (516) 369-3313

Approved By: [REDACTED]

Drafted By: [REDACTED]:rpg

Case ID #: 265A-NY-259028 (Pending)

Title: UNSUB(S)  
EXPLOSION OF TWA 800;  
7/17/96  
AOT-IT-EOD;  
OO: NEW YORK

Synopsis: Transfer of custody of evidence items, 1B555 and 1B556 to NTSB and BOEING for testing.

Details: Two FBI evidence items were released from the FBI Command Post, Calverton, New York to [REDACTED] TWA, on September 12, 1997 for testing at NTSB Laboratory, 490 L'Enfant Plaza Southwest, Washington, DC, office telephone number (202) 314-6535 and BOEING Laboratory, Box 3707, Seattle, Washington, office telephone number (206) 662-2532. The items were:

Item 146: 1B555, One section of RF50, cut out of main section of the wheel well.

Item 147: 1B556, One section of the landing tire.

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 4-13-00 BY SP5 JSC/PLA

UPLOADED ✓  
WITH/TEXT \_\_\_\_\_  
WITH/OUT TEXT \_\_\_\_\_  
BY [initials]  
DATE 9-24-97

265A-NY-259028-SUB

SEP 15 1998

2  
evid 912.wpd

Precedence: ROUTINE Date: 10/07/1997

To: New York

Attn: SSA [REDACTED]  
SSA [REDACTED]  
SA [REDACTED]  
DET. [REDACTED]  
I46 ROTOR

b7C

From: NEW YORK

FBI COMANDPOST, CALVERTON, NEW YORK

Contact: [REDACTED] (516) 369-3313

Approved By: [REDACTED]

Drafted By: [REDACTED]

Case ID #: 265A-NY-259028 (Pending)

Title: UNSUB(S);  
EXPLOSION OF TWA FLIGHT 800;  
JULY 17, 1996;  
AOT-IT-EID

Synopsis: Evidence sent to Brookhaven National Laboratory (BHL) for testing.

1/2

TC

Enclosures: FD-302 by SA [REDACTED] dated 10/03/1997;  
FD-597 dated 10/03/1997.

b7C

Details: On October 3, 1997 the following items were forwarded to BHL for testing to determine the material composition of each item for the purpose of comparison to previously tested materials:

1) Item Number 167; 1B572- a grey metal piece approximately 3.0cm x 1.5 cm x .5 cm., taken from the casing of a fuel pump.

2) Item Number 171; 1B573- a silver and grey metal piece, 1.5cm x .5cm x .4cm, taken from what appears to be an engine support strut.

3) Item Number 172; 1B573- a silver and green colored metal piece, approximately 1.0cm x .5cm x .4 cm taken from the casing of an engine.

4) Item number 173; 1B573- a green and grey metal piece, 1.5cm x .75cm x .5cm, taken from an engine propeller blade, which came from engine number four.

5) Item number 174; 1B573- a green metal piece approximately .6cm x .5cm x .3cm, taken from an engine propeller blade, which possibly came from engine number three

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 4/13/00 BY SP5 KPR

6) Item number 175; 1B573- a silver colored piece of metal approximately 1.0cm x .6 cm x .2cm, taken from an engine propeller blade, which possibly came from engine number three.

7) Item number 176; 1B573- a silver colored piece of metal, approximately 2.5cm x .5cm x .2cm, taken from and engine blade, which possibly came from engine number one.

8) Item number 177; 1B573- a grey and green metal piece approximately .6cm x .5 cm x .3cm, taken from an engine blade mount, which possibly came from engine number three.

9) Item number 178; 1B573- a grey and green metal piece approximately 1.0cm x 1.0cm x .75cm taken from an engine blade, which possibly came from engine number four.

10) Item number 179; 1B573- a silver and grey metal piece approximately .75cm x .4cm x .2cm taken from an engine blade mount, which possibly came from engine number four.

11) Item number 180; 1B574- a green and grey metal piece approximately 1.2cm x 1.0 cm x .2cm taken from the casing of engine number four.

12) Item number 181; 1B574- a green and grey metal piece taken from an outer engine ring from engine number three, approximately 1.1cm x .5cm x .2cm.

13) Item number 182; 1B574- a green and grey metal piece, approximately .5cm x .75cm x .4cm, taken from a ring near the rear of engine number two.

14) Item number 183; 1B574- a green an grey metal piece approximately 1.0cm x .5cm x .25cm, taken from an engine radial support.

The above described items were all retrieved from the engine debris of TWA Flight 800.

♦♦

10/03/1997

On 10/03/1997, at approximately 2:45 p.m., Special Agent (SA) [REDACTED] Federal Bureau of Investigation (FBI), New York Office, took custody of the following FBI evidence items from the FBI Command Post, Calverton New York: b7c

- 1) Item Number 167- a grey metal piece approximately 3.0cm x 1.5 cm x .5 cm., taken from the casing of a fuel pump.
- 2) Item Number 171- a silver and grey metal piece, 1.5cm x .5cm x .4cm, taken from what appears to be an engine support strut.
- 3) Item Number 172- a silver and green colored metal piece, approximately 1.0cm x .5cm x .4 cm taken from the casing of an engine.
- 4) Item number 173- a green and grey metal piece, 1.5cm x .75cm x .5cm, taken from an engine propeller blade, which came from engine number four.
- 5) Item number 174- a green metal. piece approximately .6cm x .5cm x .3cm, taken from an engine propeller blade, which possibly came from engine number three
- 6) Item number 175- a silver colored piece of metal approximately 1.0cm x .6 cm x .2cm, taken from an engine propeller blade, which possibly came from engine number three.
- 7) Item number 176- a silver colored piece of metal, approximately 2.5cm x .5cm x .2cm, taken from and engine blade, which possibly came from engine number one.
- 8) Item number 177- a grey and green metal piece approximately .6cm x .5 cm x .3cm, taken from an engine blade mount, which possibly came from engine number three.
- 9) Item number 178- a grey and green metal piece approximately 1.0cm x 1.0cm x .75cm taken from an engine blade, which possibly came from engine number four.
- 10) Item number 179- a silver and grey metal piece approximately .75cm x .4cm x .2cm taken from an engine blade mount, which possibly came from engine number four.
- 11) Item number 180- a green and grey metal piece approximately 1.2cm x 1.0 cm x .2cm taken from the casing of engine number four.
- 12) Item number 181- a green and grey metal piece taken from an outer engine ring from engine number three, approximately 1.1cm x .5cm x .2cm.

13) Item number 182- a green and grey metal piece, approximately .5cm x .75cm x .4cm, taken from a ring near the rear of engine number two:

14) Item number 183- a green and grey metal piece approximately 1.0cm x .5cm x .25cm, taken from an engine radial support.

SA [REDACTED] then immediately presented these items to [REDACTED] at the FBI Command Post, for transport to Brookhaven National Laboratory, Brookhaven, New York, for testing. [REDACTED] executed a FD-597, indicating her receipt of these items.

b7c

(12/31/1995)

# FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE

Date: 04/14/1999

To: FBIHQ  
New York

Attn: SSA [REDACTED] b7C  
SAC O'Neill  
ASAC D'Amuro  
✓ CDC [REDACTED]  
SSA [REDACTED]

From: New York  
I-46/TWA Task Force  
Contact: SA [REDACTED]

Approved By: [REDACTED]

Drafted By: [REDACTED] pac

Case ID #: 265A-NY-259028 (Pending)

Title: UNSUBS(S);  
EXPLOSION OF TWA FLIGHT 800,  
JULY 17, 1996,

Synopsis: Summary of TWA Flight 800 victim injury analysis  
patterns from [REDACTED] b7C

Enclosures: Attached report.

Details: On July 17, 1996 at 8:31pm Eastern Standard Time, a Boeing 747-131 airplane operated by TWA, known as Flight 800, was enroute from John F. Kennedy International Airport New York, NY to Charles DeGaulle International Airport, Paris, France. Shortly after departure from JFK and while climbing near the southern coast of Long Island the aircraft exploded and broke-up in flight crashing into the Atlantic Ocean near East Moriches, NY.

The 18 crew members and 212 passengers aboard Flight 800 were fatally injured and the airplane was destroyed.

Attached is the autopsy analysis report as it relates to injuries of the victims that were aboard Flight 800 to the damage the airplane sustained. The main objective of this investigative team was to document and utilize medical and forensic data and biomechanical analysis to reconstruct injury events occurring during all phases of Flight 800's downing. Individual and group analysis of injuries were used to aid in determining whether an explosive device detonated within the cabin or if the aircraft was subject to any outside penetrating projectiles.

265A NY/259028  
Sub-LAB RPT

SEARCHED	INDEXED
SERIALIZED	FILED
OCT 19 1999	
FBI - NEW YORK	

36

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 4-12-00 BY [REDACTED]

To: FBIHQ From: New York  
Re: 265A-NY-259028, 04/14/1999

#### PROJECT CONTRIBUTORS

Participating in this analysis were Doctors from the forensic pathology field to include, [REDACTED] b7C  
[REDACTED] Armed Forces Institute of Pathology; assisting these doctors were [REDACTED] Police Officer, Suffolk County Police Department, Data Services Section, [REDACTED] Human Performance Investigator, National Transportation and Safety Board, and FBI Special Agents, [REDACTED]  
[REDACTED]

#### BACKGROUND: VICTIM RECOVERY

The remains of 230 of the 230 victims aboard the airplane were recovered and identified. The remains were recovered at sea and brought to a temporary morgue at the Coast Guard station at East Morches, New York. The first 99 bodies were found floating on the surface of the ocean. The remaining victims were recovered by US Navy divers and local police divers during the next three months. The remains of approximately ten individuals were recovered as a result of the trawling operation conducted for four months proceeding the dive operation.

Victims were placed in body bags and transported by boat to the temporary morgue which was staffed by personnel from the Suffolk County Medical Examiner's Office and Suffolk County Police Department. Victims were assigned a medical examiner accession number, photographed, and their clothing and possessions were cataloged. The remains were then placed in a refrigerated trailer and transported to the Suffolk County Medical Examiner's Office in Hauppauge, NY.

At the ME's Office, the remains were photographed with and without clothing, radiographed, fingerprinted if possible, dentition was photographed and x-rayed and clothing and other personnel effects were catalogued. All victims were then autopsied by a forensic pathologist from either the ME or a pathologist temporarily assigned to the ME either by the State of New York or a neighboring jurisdiction.

In most cases, identification was accomplished through fingerprinting by the FBI or by forensic odontology. In rare cases, the ME utilized DNA or forensic anthropology as the primary means of identification. Additionally, more than one method of identification were employed. Body parts recovered separately were identified by DNA. FBI bomb technician and evidence responses personnel were present in the examination rooms to inspect and retrieve all items.

To: FBIHQ From: New York  
Re: 265A-NY-259028, 04/14/1999

The primary concern of the ME was to identify the victims and was under constant pressure to do so. Therefore, for the sake of expediency, a complete and thorough forensic examination was not performed. For example, no record of the condition of tympanic membranes of the victims was made nor was the foreign material removed from the bodies recorded on the autopsy reports as found loosely in the body bag, in open wounds or whether the foreign body had penetrated the skin surface and lodged in the soft tissue.

#### **METHOD: COMPUTER DATA BASE**

A data base was established to document this important forensic information in a uniform matter. Microsoft Access, version 7.0 was used. Input included, demographic information, injury data, pertinent recovery data (longs and lats) and assigned seating of each victim. This information was later used to interpret data into a mapping software package for actual visual display on the computer screen and ultimately producing color prints.

Each injury was entered into one of three data fields; external injuries, internal injuries or fractures, using a carefully defined format. The format used a specific sequence, for example, left femur, fracture, transverse; right lung, laceration, extensive; etc. The review team made determinations as to which injuries were important for developing patterns of injuries as they relate to determining primary force vectors along with any other mechanisms of injury.

Seat assignments were available for purposes of seat reconstruction. Therefore the seat assigned was used in this analysis. However, the airplane was only half full and since the plane waited over an hour on the runway prior to take off, a few passengers must have changed seats, with the exception of first class seating. Prior to explosion, the Captain had not turned off the fasten seat belt sign and therefore it is assumed that passengers were sitting with their seat belts fastened. Additionally, the fourteen flight attendants were released to perform their required duties through out the cabin.

Copies of the autopsy protocols, toxicology reports, body diagrams and photographs (taken by the SCPD and ME) are entered into FBI evidence. The radiographs are kept on file at the ME's Office, along with tissue samples taken from the flight crew.

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XXXXXXFEDERAL BUREAU OF INVESTIGATION  
FOIPA  
DELETED PAGE INFORMATION SHEET

4 Page(s) withheld entirely at this location in the file. One or more of the following statements, where indicated, explain this deletion.

- ☐ Deletions were made pursuant to the exemptions indicated below with no segregable material available for release to you.

Section 552Section 552a☐ (b)(1)☐ (b)(7)(A)☐ (d)(5)☐ (b)(2)☐ (b)(7)(B)☐ (j)(2)☐ (b)(3)☐ (b)(7)(C)☐ (k)(1)☐ (b)(7)(D)☐ (k)(2)☐ (b)(7)(E)☐ (k)(3)☐ (b)(7)(F)☐ (k)(4)☐ (b)(4)☐ (b)(8)☐ (k)(5)☐ (b)(5)☐ (b)(9)☐ (k)(6)☐ (b)(6)☐ (k)(7)

- ☐ Information pertained only to a third party with no reference to the subject of your request or the subject of your request is listed in the title only.

- ☒ Documents originated with another Government agency(ies). These documents were referred to that agency(ies) for review and direct response to you.

\_\_\_\_\_ Pages contain information furnished by another Government agency(ies). You will be advised by the FBI as to the releasability of this information following our consultation with the other agency(ies).

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\_\_\_\_\_ Pages were not considered for release as they are duplicative of \_\_\_\_\_

\_\_\_\_\_ Page(s) withheld for the following reason(s): \_\_\_\_\_

- ☒ The following number is to be used for reference regarding these pages:

265A-NY-259028 SUB FF2 LAB 37 and 38

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XXXXXX  
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U.S. Department of Justice



Federal Bureau of Investigation

In Reply, Please Refer to  
File No. 72-NY-261351

135 Pinelawn Road - Suite 350S  
Melville, New York 11747  
October 1, 1999

[REDACTED]  
National Transportation Safety Board  
490 L'Enfant Plaza East, S.W.  
Washington, D.C. 20594

b7c

Dear [REDACTED]

Enclosed via FedEx Airbill #8156-9358-8489 is a copy of the West Coast Analytical Service, Inc. lab report that you requested from SA [REDACTED] of our Long Island Resident Agency.

b7c

I hope that this report is of assistance to you.

Sincerely,

LEWIS D. SCHILIRO  
ASSISTANT DIRECTOR IN CHARGE

By: [REDACTED]

SUPERVISORY SPECIAL AGENT

b7c

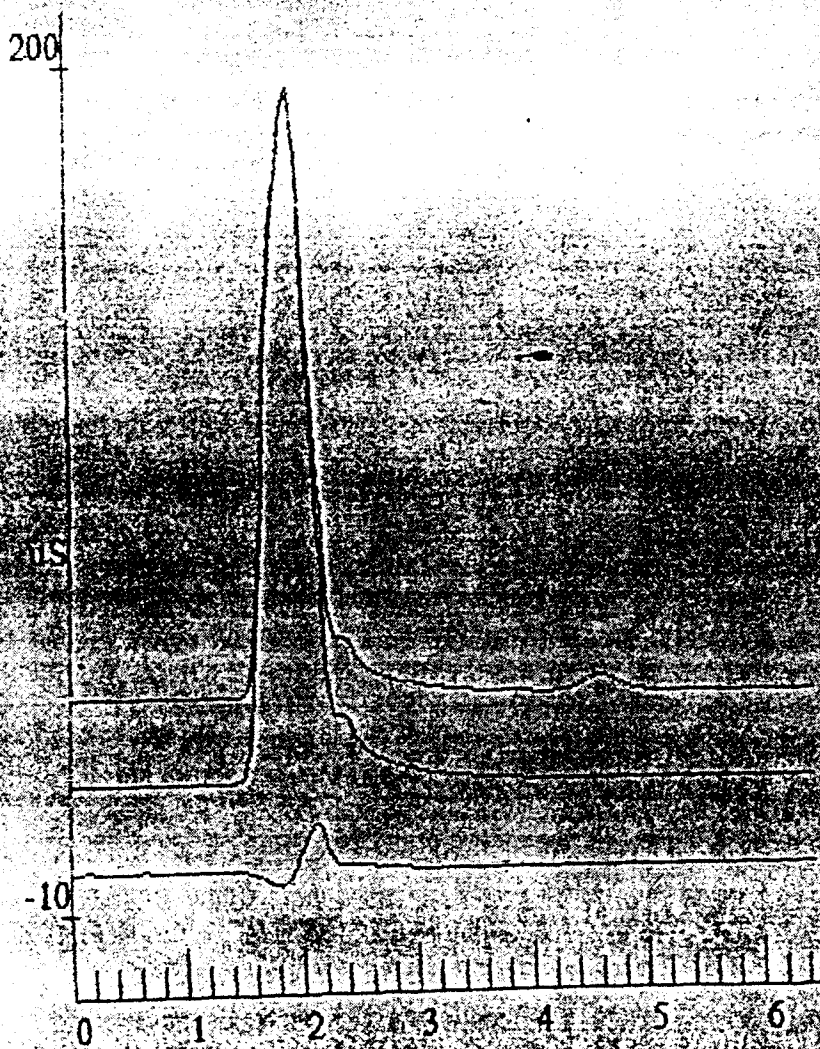
ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 4-13-00 BY SP5/JCP/K

1 - [REDACTED]

b7c

39

SEARCHED	INDEXED
SERIALIZED	FILED
OCT 20 1999	
FBI - NEW YORK	



01230011.D17

01230011.D16

01230011.D01

Minutes

TO: WEST COAST ANALYTICAL SERVICE, INSPECTRODYNE CONSULTANTS  
9840 Alburtis Avenue 4525 East Industrial Street, Unit 4P  
Santa Fe Springs, CA 90670 Simi Valley, California 93063  
(805) 582-2511

Attention: [REDACTED]

PURCHASE ORDER NO. 01KG0123

Project No. 33986

January 30, 1997

### SEMIQUANTITATIVE ANALYSIS

Proj. No 33986  
Foam Rubber with  
Orange Residue



Si	15.8
Fe	3.1
Ca	12.
Al	2.8
Mg	18.
Cu	0.053
Ti	1.7
Sb	0.53
Mn	0.21
B	0.081
Pb	2.4
Ag	0.032
Zn	3.6
Ni	0.38
Cr	0.032
Other Elements	NIL

Note: Only 1 mg of sample was obtained. Some of it is probably the foam rubber.

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 9-13-00 BY SP5 LSC/PA

Respectfully submitted,  
[REDACTED]

INSPECTRODYNE CONSULTANTS

polysulfide binder - synthetic rubber

metal

oxidant

double bond system

nitro cellulose

nitro glycerine

polymeric binder

asphalt

syn rubber

butadiene - acrylonitrile

acid - acrylonitrile

butadiene

oxidants

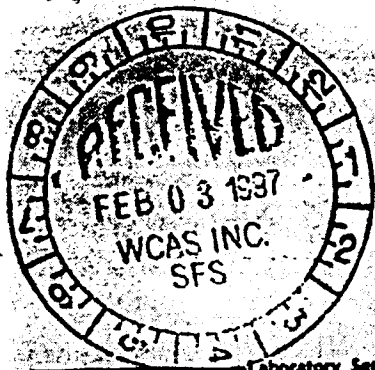
perchlorates

Nitrates

nitrocellulose  
K, NH<sub>4</sub>, Li, Na

metals - Al, Be

perchlorate

**SPECTRODYNE CONSULTANTS**

4525 East Industrial Street, Unit 4P  
Simi Valley, CA 93063  
(805) 582-2511

Laboratory Service Reported To:

**WEST COAST ANALYTICAL SERVICE, INC.**  
9840 Alburttis Avenue  
Santa Fe Springs, CA 90670

Attention: Accounts Payable

INVOICE NO. 2450

DATE January 30, 1997

PO NO. 01K60121

Proj. #33986

Terms: NET CASH

	DESCRIPTION	UNIT PRICE	AMOUNT
	SEMIQUANTITATIVE ANALYSIS	\$56.00	
1	Sample: Project No. 33986 Foam Rubber with Orange Residue		\$56.00
	Reported 1-30-97		
	Total:		\$56.00

INVOICE RECORD	
Vendor No. 552-61	Date
Invoice No. 2450	Date
Due Date 2/10/97	Date
Distribution Account/Dept.	Anal. Dept.
TOTAL INVOICES	
Invoice Approval	Client Approval

33986  
Chavez  
485

WEST COAST ANALYTICAL SERVICE, INC.  
Professional Analytical Chemists  
9840 Alburtils Avenue, Santa Fe Springs, CA 90670  
310/948-2225 FAX 310/948-5850

AP notes:

Additional notes:

1-23-97 per JN sub-sample  $\frac{1}{4}$  of total sample to send  
for Emission spec. sub-sampled 0.75 inch of sample. -kg  
2-4-97 Fayed [REDACTED] GHL b7c

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FEDERAL BUREAU OF INVESTIGATION  
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2 Page(s) withheld entirely at this location in the file. One or more of the following statements, where indicated, explain this deletion.

- ☒ Deletions were made pursuant to the exemptions indicated below with no segregable material available for release to you.

Section 552

Section 552a

☐ (b)(1)

☐ (b)(7)(A)

☐ (d)(5)

☐ (b)(2)

☐ (b)(7)(B)

☐ (j)(2)

☐ (b)(3)

☒ (b)(7)(C)

☐ (k)(1)

☒ (b)(7)(D)

☐ (k)(2)

☐ (b)(7)(E)

☐ (k)(3)

☐ (b)(7)(F)

☐ (k)(4)

☐ (b)(4)

☐ (b)(8)

☐ (k)(5)

☐ (b)(5)

☐ (b)(9)

☐ (k)(6)

☒ (b)(6)

☐ (k)(7)

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265A-NY-259028-SUB FF2 dated 7/23/96

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FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE

Date: 07/29/1996

To: NEW YORK

Attn: SAC, DIVISION I

From: NEW YORK

I-46, DIVISION I

Contact: SA [REDACTED]

b7c

Approved By: [REDACTED]

Drafted By: [REDACTED] cmg

File Number(s): 265A-NY-259028 (Pending)

Title: UNSUB(S); EXPLOSION OF TWA FLIGHT 800 ON 7/17/96;  
AOT-IT;EID; OO:NY

Synopsis: SUB-FILE ADMINISTRATION

Details: In addition to the main file, the following is a listing of sub files for captioned matter:

- SUB A. Outgoing communications.
- SUB B. Incoming communications.
- SUB C. Administrative Matters.
- SUB D. Lead Sheets - Copies of all lead sheets.
  - D1. 800 Generated Leads
  - D2. Internet Generated Leads
  - D3. Miscellaneous Lead - No action to be taken.
- SUB E. Secret - To maintain classified information.
- SUB F. Press releases and news clippings.
- SUB G. Searches
  - G1. Moriches recovery - reclass to FF.
  - G2. Articles received from JFK Airport.
- SUB H. Claims of responsibilities.
- SUB I. Logs - copies of Daily Activity Log.
- SUB J. Top Secret - maintained in I-46 safe.

265A-NY-259028-SUB

FF2-

1

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HEREIN IS UNCLASSIFIED EXCEPT  
WHERE SHOWN OTHERWISE

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4-13-00

CLASSIFIED BY: SP5 SCP/derivative 1996

REASON: 1.5 (C)

DECLASSIFY ON: X

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SERIALIZED	FILED
JUL 31 1996	
FBI - NEW YORK	

912069

~~SECRET~~

To: NEW YORK From: NEW YORK  
Re: 265A-NY-259028, 07/29/1996

SUB K. Investigative reports of outside Agencies/Police Departments.

SUB FD302 The original and one copy of FD302's.

SUB INS The original and one copy of inserts.

SUB BC Background checks.

SUB CE Draft requests and financial related documents.

SUB LAB Lab reports.

SUB SPB Copies of subpoenas issued.

SUB TEL Telephone subscriber and toll information.

SUB AA. Flight Related investigative matters.  
AA1. Flight 800 passenger manifest.  
AA2. Interviews  
AA3. Flight 800 cargo manifest.  
AA4. Flight 881 passenger manifest.  
AA5. Flight 881 cargo manifest.  
AA6. Maintenance Flight 800.

SUB BB. Previous bomb threats and related matters.

SUB CC. Possible missile attack.  
CC1. Interviews - Land Canvass  
CC2. Interviews - Technical Data  
CC3. Interviews - Vessels and Aircraft  
CC4. Interviews - Marinas  
CC5. Stolen Crafts  
CC6. Police Canvass - Unusuals

SUB DD. Airport Related/Port Authority  
DD1. [REDACTED] Information  
DD2. Pay Telephone Dumps  
DD3. Stolen/Abandoned vehicles at airports

SUB EE. Manifest of International Flights.

SUB FF. Recovery effort - Moriches/Grumman  
FF1. Copies of Outgoing Leads/Lab Request  
FF2. Lab reports  
FF3. Medical Examiner Reports

b3

~~SECRET~~

~~SECRET~~

To: NEW YORK From: NEW YORK  
Re: 265A-NY-259028, 07/29/1996

FF4... Temporary Morgue Reports.  
FF5. Dive Sheet/Logs

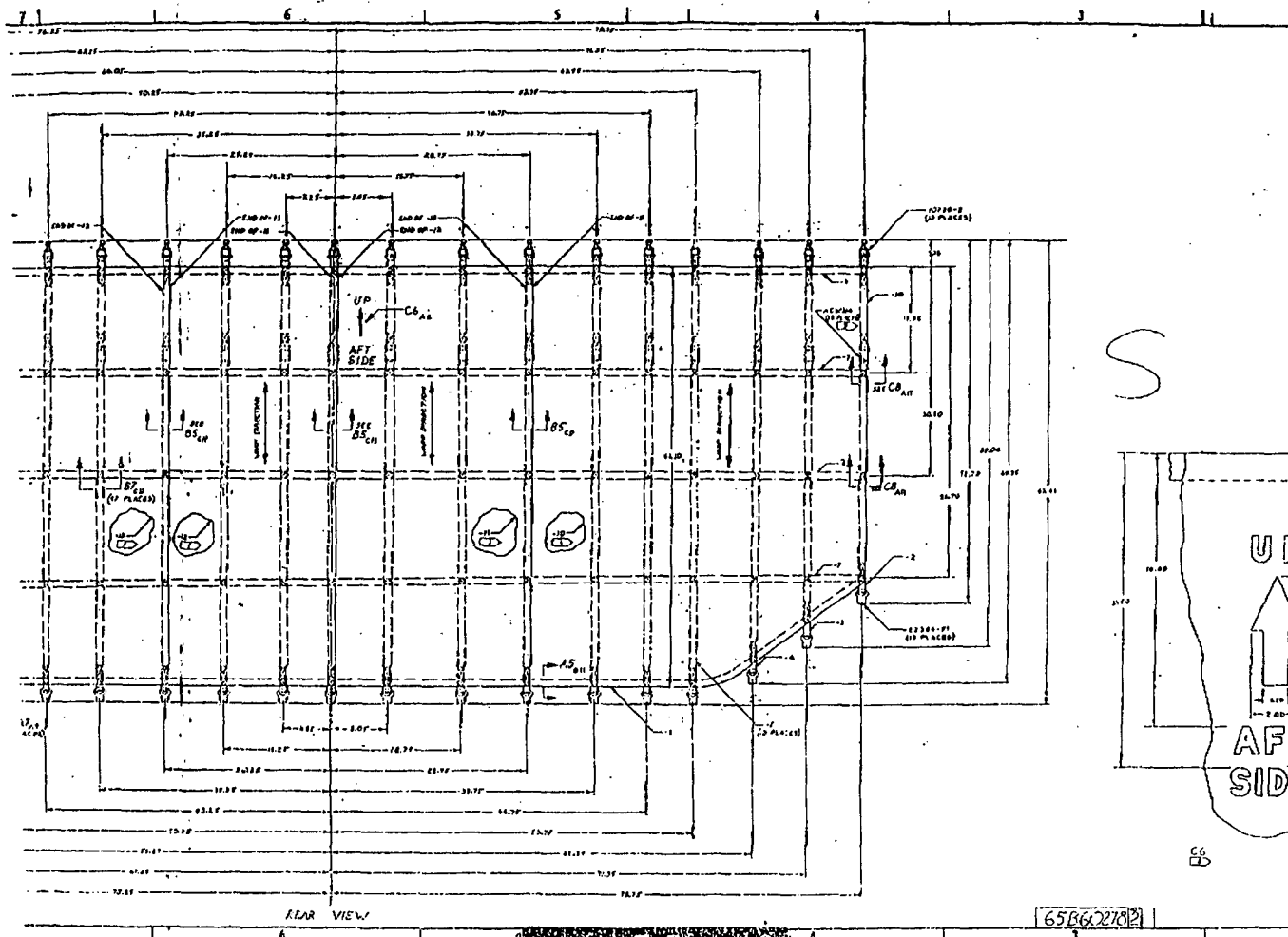


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(S)

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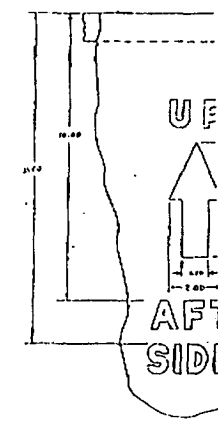
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LIST TITLE		DIVIDER ASSY - STATION 1920, BULK CARGO COMPT				GROUP CARGO SYS	CONTRACT NUMBER		SHT. 10 SMTS.
ASSEMBLY BREAKDOWN LIST									
QTY REQD	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTE NOTES CODE	REV SYM					
-	-1	DIVIDER ASSY	- MD PT MK C						
-	-22	DIVIDER ASSY	- DP DRAWING PICTURE SHEET 2, 3						
-	HAC5347	PROCESS SPEC	- MD ZONE 3A6 PT MK C						
-			- DP DRAWING PICTURE SHEET 2, 3						
.....									
ASSY	-1	DIVIDER ASSY	- MD PT MK C						
1	-10	NYLON FABRIC	- MD DP DRAWING PICTURE SHEET 2, 3						
			- MD STOCK 54 X 65						
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			INC. PANTUCKET, RHODE ISLAND, 02860.						
			MATERIAL IDENTIFIER AND TEST REPORT CODE C0030-875-2L						
			FABRIC DIMENSIONS APPROXIMATE, MAKE TO FIT. SEW WITH						
			TEXTURED SIDE OF FABRIC TO NEAR SIDE						
			PT MK R						
			STOCK 30 X 65						
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			CO. SEATTLE, WASH CODE IDENT 03369-3 OPTIONAL						
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			INC. PANTUCKET, RHODE ISLAND, 02860.						
			MATERIAL IDENTIFIER AND TEST REPORT CODE C0030-875-2L						
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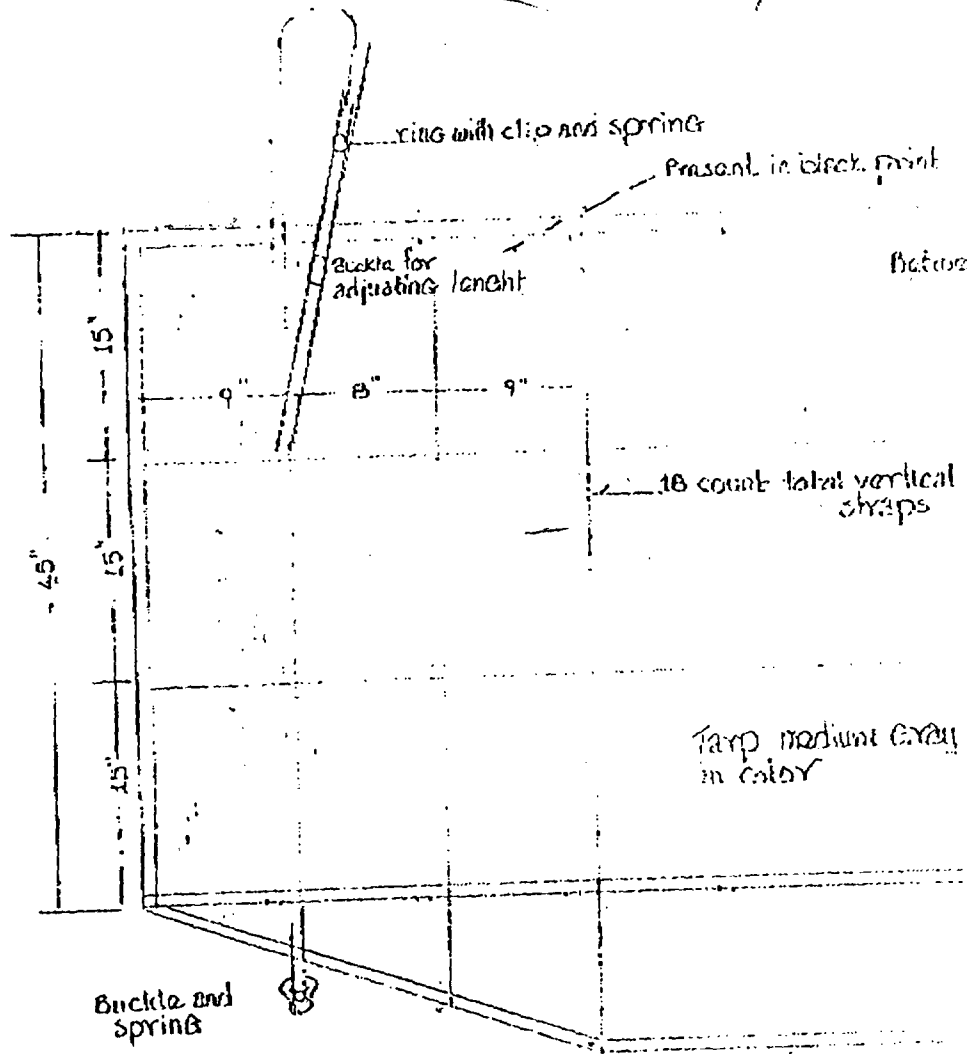
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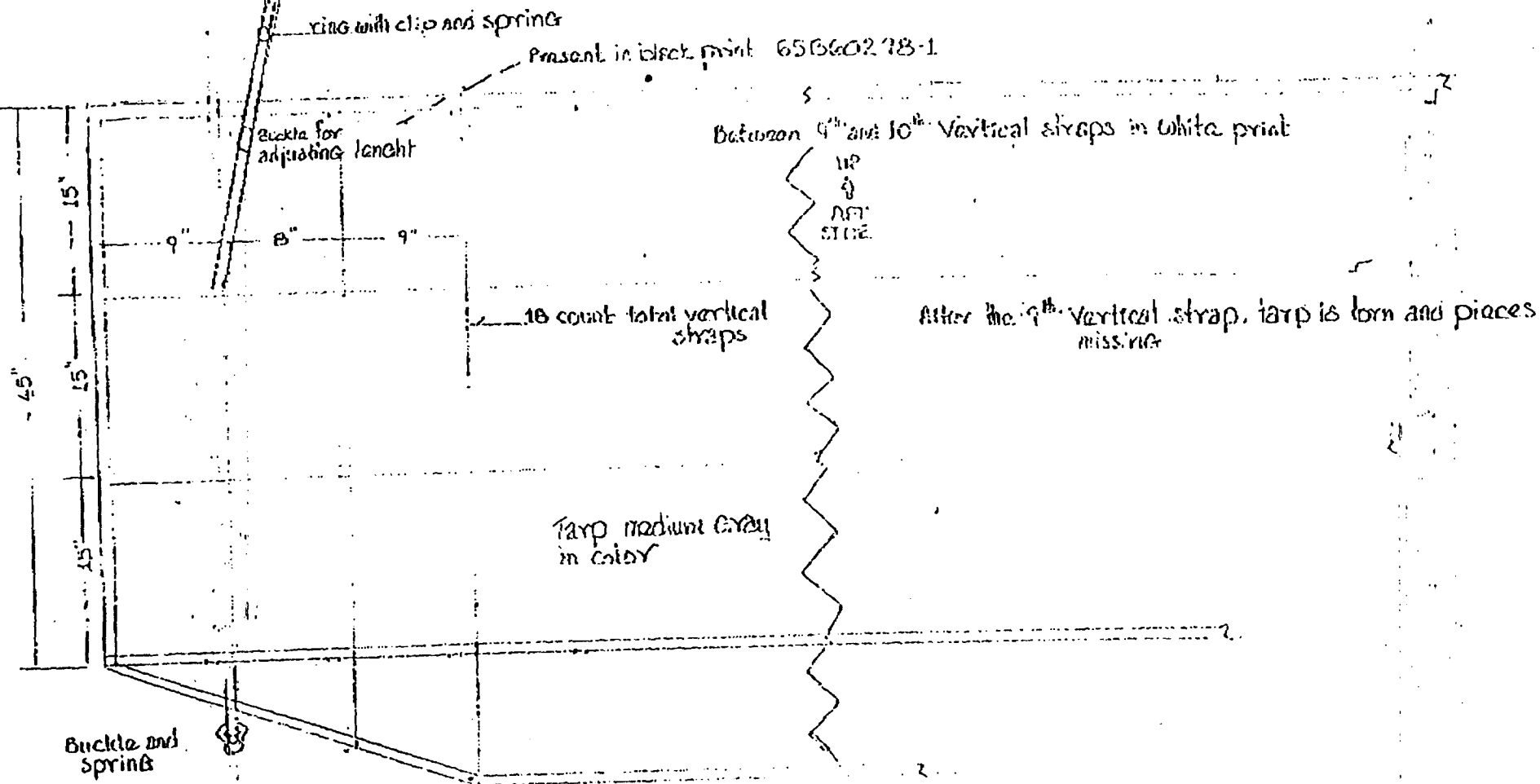
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FOT LABORATORY

Between 9<sup>th</sup> and 10<sup>th</sup> Vertical straps in white printUP  
DOWN  
SIDEAfter the 9<sup>th</sup> Vertical strap, tarp is torn and pieces missing

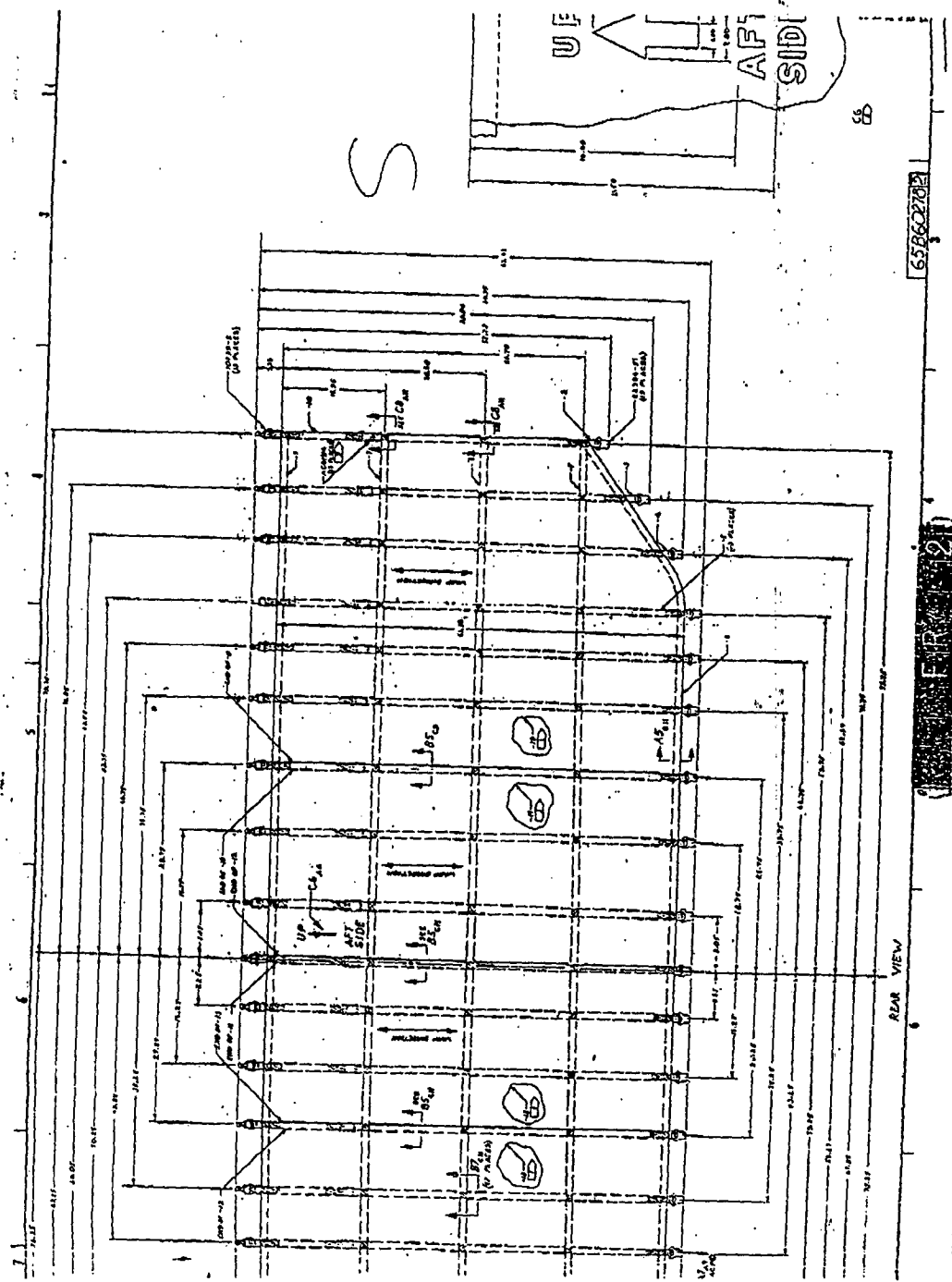


265A-NY-259028-SUB-FF2

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FBI - NEW YORK	

13

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# FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE

Date: 10/10/1996

To: NEW YORK

From: NEW YORK

I-46

Contact: [REDACTED]

b7c

Approved By: [REDACTED]

Drafted By: [REDACTED] ctv

Case ID #: 265A-NY-259028-FF2 (Pending)

Title: UNSUB(S);  
EXPLOSION OF TWA FLIGHT 800  
JULY 17, 1996;  
AOT-IT-EID;

Synopsis: Item #30, 1B127, material sent to NTSB lab.

Details: Item #30 from 1B127, evidence control # E1191108, is a portion of "Span Wise Beam No.2, Boeing #65B 12010-10". This item was shipped to the National Transportation Safety Board (NTSB) lab for metallurgical testing, on 08/09/96. (NOTE: This part is from a location within the fuel tank which is NOT directly accessible during normal "transportation" use of the aircraft.)

Span Wise Beam #2 is at approximately station 1098, in the center wing fuel tank. This tank's location is from approximately station 1000 to station 1238. The station numbers are marked out in inches. The tank's overall length is approximately 240 inches (due to curvature).

The physical location in the center fuel tank of this portion of Span Wise Beam #2 is to the right of the center line. The "spars" and span wise beams in the center fuel tank are positioned from forward to aft as follows: the Front Spar (station 1000), Span Wise Beam #3 (station 1042), Span Wise Beam #2 (station 1098), the Mid Spar (station 1140), Span Wise Beam #1 (station 1181), then the Rear Spar (station 1238).

(NOTE: All station numbers given for each beam and spar are at the top. They are slightly different at the bottom. Also, the overall length is commonly cited as 240 inches, which is different from the 238 inches indicated by the [REDACTED] 265A-NY-259028-SUB FF2.

CTV  
4

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SEARCHED	INDEXED
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OCT 16 1996	
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b7c

**FEDERAL BUREAU OF INVESTIGATION**

To: NEW YORK From: NEW YORK  
Re: 265A-NY-259028, 08/10/1996

numbers. This is due to the curve of the upper skin of the tank.)

This item was returned in two (2) pieces on 08/15/96. It was cut during examination at the NTSB lab. Present during the examination was FBI metallurgist SSA [REDACTED]

A copy of the NTSB report is attached to this communication.

The details of this report are reproduced as follows:

(NOTE: The center line of the aircraft is referred as the "Butt-Line", RBL designates the Right Butt Line, or to the right of the center line.)

referred

(06/01/1995)

**FEDERAL BUREAU OF INVESTIGATION**

To: NEW YORK From: NEW YORK  
Re: 265A-NY-259028, 08/10/1996

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

*referred*

(06/01/1995)

**FEDERAL BUREAU OF INVESTIGATION**

To: NEW YORK From: NEW YORK

Re: 265A-NY-259028, 08/10/1996

*referred*

(06/01/1995)

**FEDERAL BUREAU OF INVESTIGATION**

To: NEW YORK From: NEW YORK

Re: 265A-NY-259028, 08/10/1996

[REDACTED]

[REDACTED]

referred

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FEDERAL BUREAU OF INVESTIGATION  
FOIPA  
DELETED PAGE INFORMATION SHEET

6 Page(s) withheld entirely at this location in the file. One or more of the following statements, where indicated, explain this deletion.

- ☐ Deletions were made pursuant to the exemptions indicated below with no segregable material available for release to you.

Section 552

Section 552a

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|---------------------------------|------------------------------------|---------------------------------|
| <input type="checkbox"/> (b)(1) | <input type="checkbox"/> (b)(7)(A) | <input type="checkbox"/> (d)(5) |
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| <input type="checkbox"/> (b)(6) |                                    | <input type="checkbox"/> (k)(7) |

- ☐ Information pertained only to a third party with no reference to the subject of your request or the subject of your request is listed in the title only.

- ☒ Documents originated with another Government agency(ies). These documents were referred to that agency(ies) for review and direct response to you.

\_\_\_\_\_ Pages contain information furnished by another Government agency(ies). You will be advised by the FBI as to the releasability of this information following our consultation with the other agency(ies).

\_\_\_\_\_ Page(s) withheld inasmuch as a final release determination has not been made. You will be advised as to the disposition at a later date.

\_\_\_\_\_ Pages were not considered for release as they are duplicative of \_\_\_\_\_

\_\_\_\_\_ Page(s) withheld for the following reason(s): \_\_\_\_\_  
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- ☒ The following number is to be used for reference regarding these pages:

265A-NY-259028 SUBFF2, LAB 15 dated 8/13/96

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Precedence: ROUTINE Date: 08/11/1996

To: New York

Attn: ASAC George H. Andrew

From: [REDACTED]

I-46

b7c

Approved By: [REDACTED]

Drafted By: [REDACTED] emf

Case ID #: 265A-NY-259028 (Pending)

Title: UNSUB(S);  
EXPLOSION OF TWA FLIGHT 800;  
JULY 17, 1996;  
AOT-IT-EID

Synopsis: Contact with NTSB representative.

Details: [REDACTED]

b7c

[REDACTED] was contacted regarding status of investigation and autopsies being conducted at the Medical Examiner's Office. [REDACTED] was also contacted regarding a database being put together in connection with the autopsy information, this will be addressed on a separate communication.

[REDACTED] advised that the Medical Examiners at the SCMEO are not in receipt of any clothing worn by any of the victims. [REDACTED] would like to have the ability to review this clothing to correlate injuries on the bodies with the apparel they were wearing.

[REDACTED] advised that autopsies should be completed by the middle of this coming week. After the autopsies are completed, the team of medical doctors at the SCMEO, which consists of the Medical Examiner, an FAA Medical Doctor and a Colonel from the Military acting in a consulting role for the NTSB will conduct a quality review of the data and autopsy reports generated and initiate a force vector analysis. The force vector analysis will be a review of all the damage done to the victims thus far recovered in an attempt to determine and plot the various trajectories with which debris hit the bodies.

5

265A-NY-259028-SUB-FF2

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FBI - NEW YORK	

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RUS

11/19/96

[redacted] was advised of the interest of the FBI in being involved in this review. [redacted] informed that this would be welcomed. Previous steps have been taken to have an investigator from the squad involved with this process. b7C

[redacted] was also interested in ensuring that the seats, seat backs, seat cushions, etc., were all thoroughly reviewed for any fragments of foreign objects that may be contained within. [redacted] recommended the utilization of an X-ray machine to conduct X-rays on all seat cushions, seat backs, etc., to ensure that any foreign objects are removed from these items.

[redacted] advised that foreign objects being removed by the medical examiners from the bodies of the victims have been provided to the FBI.

Review of FD-192s discloses numerous green sheets reflecting foreign material being removed from victims' bodies. These bodies are being identified through a body number code. Per FD-192s, these are being stored at the hazardous material room at Grumman.

If not already done so:

Attempts should be made to identify the fragments removed from the bodies as to particular plane parts and areas. This will be particularly useful when trying to conduct trajectory analysis and determine the origin of forces..

- Identify seats recovered thus far by seat location, conduct X-ray of the seats to ensure that no fragments remain in them.

- X-ray seat cushions recovered. Is it possible to match seat cushions recovered with the seats from which they came? Are any cushions being recovered separated. If not, when they are separated are they referenced to the seat from where they came?

- Identify clothing recovered thus far through the body number. Examine this clothing for trajectory analysis, remaining debris, etc.

- Assign an investigator from the task force to work with the medical doctors in conducting this review and coordinating the flow of information needed to perform and complete force vector analysis as described above.

cc: 1 - SSA [redacted]  
1 - SSA [redacted]  
1 - SA [redacted]  
1 - Det [redacted]

b7C

# FEDERAL BUREAU OF INVESTIGATION

Precedence: IMMEDIATE

Date: 01/21/97

To: LABORATORY DIVISION

Attn: SECTION CHIEF RANDALL  
MURCH/SSA [REDACTED] b7c

From: [REDACTED]

CALVERTON CP

Contact: 516-369-3313

Approved By: [REDACTED] KJW

Drafted By: [REDACTED]

Case ID #: 265A-NY-259028-FF (Pending)

Title: UNSUB;  
EXPLOSION OF TWA 800;  
7/17/96  
AOT-IT-EOD;  
OO: NEW YORK

Synopsis: Notification of meeting at Boeing Corporation, Everett, Washington, to review status of Boeing overpressure analysis of B-747 center wing tank

Details: On Thursday, February 6, 1997, the Boeing Corporation will hold a meeting to review the status of Boeing overpressure analysis of the B-747 center wing tank. The meeting agenda is as follows:

Factory Visual (optional - limited  
number of people can be accommodated)

8:00-10:00

Official Meeting Start

10:00

Overpressure Analysis

Introduction/Background

1/2-1 hr

Fuel/Air Explosion Physics

1 hr

Multi-Cell Compartments (Varied  
Ignition locations)

1/2-1 hr

Structural Analysis Status

1 hr

1-ADIC KALLSTROM

1-SAC O'NEILL

1-ASAC DOMROE

1-SSA [REDACTED]

1-SSA [REDACTED]

1

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DATE 4-13-00 BY SPS/3E/PM b7c

NOV 11 1998

**FEDERAL BUREAU OF INVESTIGATION**

To: ADIC, NEW YORK From: SA [REDACTED]  
Re: 265A-NY-259028, 08/06/1996

b7c

SA [REDACTED] will attend as a representative from New York. SA [REDACTED] a Bureau Aircraft Accident Investigator, is one of two agents working in a liaison capacity with the National Transportation Safety Board (NTSB) and all of the parties participating in the investigation into the cause of the explosion and crash of TWA 800 on July 17, 1996. SA [REDACTED] will travel from the Phoenix Division to attend the above described meeting departing Phoenix late February 5 and returning on the evening of February 6, 1997.

It is requested that a representative from the FBI Laboratory attend the above meeting consistent with previous meetings concerning testing conducted to determine cause of the explosion and crash of TWA 800 July 17, 1997.

It is anticipated that the Boeing Corporation will furnish transportation to the meeting site in Everett, Washington from a hotel location near the Seattle-Tacoma International Airport. This information will be provided when it is obtained.

~~SECRET~~

FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

Date: April 25, 1997

To: ADIC, New York

FBI File No. 265A-NY-259028

Lab No. 61114052 S AD HK  
70207064 S AD HK  
70224039 S AD HK

Reference: Your communications dated February 6 and 19, 1997

Your No. 265A-NY-259028

Re: UNSUBS;  
EXPLOSION OF TWA FLIGHT 800;  
AOT-IT-EOD

Specimens received: February 7 and 24, 1997

Specimens received February 7, 1997 under cover of communication dated February 6, 1997 (70207064 S AD HK):

- Q128 One piece of splatter material (your item #MM1 CW-504 LBL-104)
- Q129 One piece of splatter material (your item #MM3 CW-504 LBL-106.72)
- Q130 One piece of splatter material (your item #MM4 CW-504 LBL-106)
- Q131 One piece of splatter material (your item #MM5 CW-114)
- NE8 One blade 4-13-00

265A-NY-259028-SUB FF 2

CLASSIFIED BY 50573/PV/under review  
REASON 1.5 (C)  
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Page 1

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- ☐ Deletions were made pursuant to the exemptions indicated below with no segregable material available for release to you.

Section 552

Section 552a

☐ (b)(1)

☐ (b)(7)(A)

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☐ (b)(7)(B)

☐ (j)(2)

☐ (b)(3)

☐ (b)(7)(C)

☐ (k)(1)

☐ (b)(7)(D)

☐ (k)(2)

☐ (b)(7)(E)

☐ (k)(3)

☐ (b)(7)(F)

☐ (k)(4)

☐ (b)(4)

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☒ Pages were not considered for release as they are duplicative of 265A-NY-259028-SUB LAB2  
pages 2 & 3

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265A-NY-259028-SUB FF2-7 pages 2 & 3

XXXXXXXXXXXXXXXXXXXX  
X Deleted Page(s) X  
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XXXXXXXXXXXXXXXXXXXX

XXXXXX  
XXXXXX  
XXXXXX

(12/31/1995)

# FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE

Date: 12/08/1997

To: New York

Attn: ADIC JAMES KALLSTROM  
SAC JOHN O'NEILL  
ASAC PASQUALE DAMURO  
SSA [REDACTED]  
SA [REDACTED]  
DET [REDACTED]

b7c

From: New York

FBI Command Post, Calverton, New York  
Contact: SA [REDACTED]

b7c

Approved By: [REDACTED] SSRA *RAM*

Drafted By: [REDACTED] pfr

Case ID #: 265A-NY-259028 (Pending)

Title: UNSUB(S);  
EXPLOSION OF TWA 800;  
7/17/96  
AOT-IT-EOD;  
00: NEW YORK

Synopsis: Incorporates the 185 items of 1B evidence submitted for laboratory analysis in the investigation of TWA Flight 800 into the case file.

Enclosures: Enclosed are folders documenting the identification, movement and analytical results of 185 items of 1B evidence submitted for laboratory analysis.

Details: A total of 185 items (items #1-#185) of 1B evidence were submitted for metallurgical and chemical analysis during the course of the investigation. The 1B numbers assigned to the 185 items of evidence submitted for analysis range from 1B9, the first item of evidence, through 1B 586 for items 184 and 185.

The laboratories that examined the 185 items of 1B evidence include FBI, NTSB, Brookhaven, DIA and Boeing.

Each enclosed folder for the 185 items of 1B evidence submitted for laboratory analysis contains photographs, electronic communications documenting the movement of the evidence, laboratory results and the FD-192 (green sheet).

Each folder provides a complete history of each item of evidence and should be made a permanent part of the case file 265A-NY-259028.

(X)  
TC

♦♦  
ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 4-15-00 BY SP5/SC/PA

265A-NY-259028 SUB FF

SEARCHED	INDEXED
SERIALIZED	FILED
DEC 8 1997	
FBI - NEW YORK	

[REDACTED] TC b7c

Job Number 33986

Chemist [REDACTED]

Date Received 01/23/97

b7C

Company [REDACTED]

104 Arena Street  
Williamsburg, VA  
Zip 23185

PO PAID IN FULL  
Project NEW CLIENT-PAID  
Code  
Date Sampled: / /

Technical Contact [REDACTED]

quote enclosed \_\_\_\_\_

Phone [REDACTED]

Instructions Enclosed \_\_\_\_\_

Retainer \$ \_\_\_\_\_ Ck# \_\_\_\_\_

\*\*\*\*\* WEST COAST ANALYTICAL SERVICE, INC. \*\*\*\*\*

Sample Description: 1 Foam Rubber Sample

in baggie on log-in shelf .....

\* Send report Fed-Ex \*\*\*

Group	No.	Analysis	Priority	Price	Ea	Extension
10	1	Perchlorate see c of c	7	[REDACTED]	[REDACTED]	[REDACTED]
05	1	Emission Spectroscopy Sent to Spectrdn Cnsltnts	14	[REDACTED]	[REDACTED]	[REDACTED]

b2  
b7E

Total [REDACTED]

01/23/97  
14:06:00

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 4-13-00 BY 80572 PYN

January 31, 1997

[REDACTED]  
104 Arena Street  
Williamsburg, VA 23185

Attn: [REDACTED]

Job No: 33986

S

---

LABORATORY REPORT

---

Samples Received: One (1) Foam Rubber Sample  
Date Received: 1-23-97  
Purchase Order No: Paid In Full

The sample was analyzed as follows:

<u>Samples Analyzed</u>	<u>Analysis</u>	<u>Page</u>
One (1) sample	Perchlorate by IC	2
One (1) sample	Semiquantitative Analysis by Emission Spectroscopy Subcontracted to: Spectrodyne Consultants	3

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 4/13/00 BY SP P/PVN

Page 1 of 3

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[REDACTED] | [REDACTED] b7C

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WEST COAST ANALYTICAL SERVICE, INC.

Job No: 33986  
January 31, 1997

b7c

LABORATORY REPORT

Perchlorate by IC

IC Conditions

Column: Dionex NS1 (with NG1 guard)  
Eluent: 2 mM TBAOH\*, 1 mM Na<sub>2</sub>CO<sub>3</sub>, 40% acetonitrile; 1.5 mL/min.  
Inject. Vol.: 300 microliters  
Detection: Suppressed Conductivity

\* - Tetrabutylammonium hydroxide

Approximately 0.05 g of the sample was extracted in 20 ml of 1 mM Na<sub>2</sub>CO<sub>3</sub>/0.38 mM NaHCO<sub>3</sub> buffer, with sonication for 30 min. A matrix spike was prepared by adding 1 ml of 100 ppm perchlorate stock with 19 ml of the buffer.

Sample ID                      Parts Per Million (ug/g)

Foam Rubber w/  
Orange Residue                      ND

Detection Limit                      40

Date Analyzed: 1-23-97

Matrix Spike Recovery Summary

Sample: Foam Rubber w/Orange Residue  
Units: ppm (ug/g)

Analyte	Sample Result	Amount Spiked	MS Result	% Rec MS
Perchlorate	ND	2090	1940	93

QC Limits

Analyte	% Recovery
Perchlorate	60-140

This report is to be reproduced in its entirety.

WEST COAST ANALYTICAL SERVICE, INC.

Job No: 33986  
January 31, 1997

b7c

LABORATORY REPORT

Semiquantitative Analysis  
by Emission Spectroscopy

Foam Rubber w/Orange Residue

<u>Elements</u>	<u>Percent</u>
Magnesium	18
Silicon	15
Calcium	12
Zinc	3.6
Iron	3.1
Aluminum	2.8
Lead	2.4
Titanium	1.7
Antimony	0.53
Nickel	0.38
Manganese	0.21
Boron	0.081
Copper	0.053
Silver	0.032
Chromium	0.032

Date Analyzed: 1-30-97

Note: Only 1 mg of sample was obtained. Some of it is probably the foam rubber.

Client: [REDACTED]  
Job no.: 33986

b7c

Perchlorate by IC

IC Conditions

Column: Dionex NS1 (with NG1 guard)  
Eluent: 2 mM TBAOH, 1 mM Na<sub>2</sub>CO<sub>3</sub>, 40% acetonitrile; 1.5 mL/min.  
Inject. Vol.: 300 microliters  
Detection: Suppressed Conductivity

• - Tetrabutylammonium hydroxide

Approximately 0.05 g of the sample was extracted in 20 mL of 1 mM Na<sub>2</sub>CO<sub>3</sub> / 0.38 mM NaHCO<sub>3</sub> buffer, with sonication for 30 min. A matrix spike was prepared by diluting 1 mL of 100 ppm perchlorate plus a piece of the foam rubber sample with 19 mL of the buffer.

Parts Per Million ( ug/g )

Sample ID

Analyte	Foam Rubber with Orange Residue	Detection Limit
Perchlorate	ND	40

Date Analyzed: 1/23/97  
ND - Not Detected

Matrix Spike Recovery Summary

Sample: Foam Rubber

Matrix: Bicarbonate/Carbonate Buffer Extract

Analyte	Sample Amount	MS	% Rec	
	Result	Spiked	Result	MS

Perchlorate	ND	2090	1940	93
-------------	----	------	------	----

ND - Not Detected

QC Limits

Analyte	% Recovery			
	Warning		Control	
Perchlorate	80	120	60	140

ALL PER INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 4-13-00 BY SPS bsc/pvp

106

7/23/96

Perchlorate

b7c

MS/MS

12:35 pm

Perchlorate

Lab. Phase

(w/ 40% ACN) on system

Col = NS 1 SW 2210

Guard = NG1 SW 9653

pmt Suppressor SN 843 on System

start col. flow w/ regenerant (H<sub>2</sub>SO<sub>4</sub> anion  
regenerant) @ 1 pmset H<sub>2</sub> to 14 psi

300ml loop

1210 psi = col pressure

BNA = 10.1  $\mu$ s

File	Job	Client	SAMPLE	minutes
01230011.vcl			1/2 NS 9 Buffer	1
002			AVIOCHL5K	1
003			AUTOCHL4K	1
004			AVIOCHL3K	1
005			AVIOCHL2K	1
006			AUTOCHL1K	1
007			method bl	1
008			S ppm ICU	1
009			H <sub>2</sub> O	1
010	33926	AEW	701717 01	1
011	33953	"	701774 01	1
012	33926	"	701717 01 MS	1.01
013	"	"	"	MSD 1.01
014	33953	"	701779 01 MS	1.01
015	"	"	"	MSD 1.01
016	33986	Sanders	Form Buffer	444
017	"	"	"	MS 417
018			S ppm STD.	1
019			H <sub>2</sub> O	

PROJECT

c10g on 1/2 in Rubber

Notebook No.

Continued From Page

START

33986

a piece of foam rubber  
cut off 2 equal pieces

1 → 20 mL 1/2 strength AS 9 Eluent

2 → 1 mL 100 ppm perchlorate + 19 mL 1/2 strength

AS 9 Eluent (MS)

Spike is @ 5 ppm

#1 mass g  
0.0451

round off to 0.045 g

DF = 444

#2 0.0477

round off to 0.048 g

DF = 417

in AS 9 buffer by 1:50 ppm

Sonicate 30 min

Continued on Page *end*

Read and Understood By

Signed

Date

1/24/97

3

Signed

Date

b7c

Sample Name: 1/2 AS-9 BUFFER Date: 01/23/1997 13:23:50  
 Data File : C:\DX\DATA\ANIONS\01230011.D01  
 Method : C:\DX\METHOD\CLO4.met  
 ADI Address: 1 System: 1 Inject#: 1 Detector: CDM-1  
 Analyst : EC Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	1950	5Hz	0.00	6.50		200

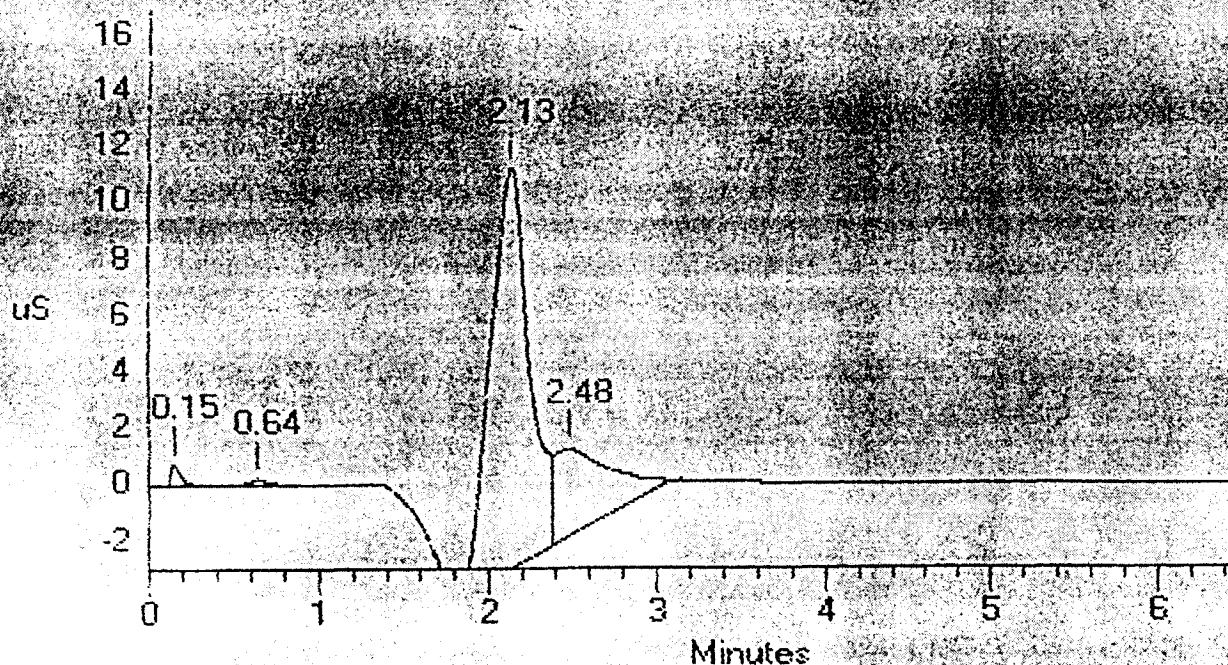
\*\*\*\*\* Component Report: Components Found \*\*\*\*\*

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Del
Totals			0.000	0	0		

\*\*\*\*\* Peak Report: Unknown Peaks \*\*\*\*\*

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Del
1	0.15		0.000	759	3218	1	
2	0.64		0.000	224	1423	1	
3	2.13		0.000	14227	229220	2	
4	2.48		0.000	3074	66950	2	
Totals			0.000	18284	300811		

File: 01230011.D01 Sample: 1/2 AS-9 BUFFER



Sample Name: AUTOCAL  
 Data File : C:\AD\DATA\AN100\AX01\20011.D06  
 Method : C:\AD\METHODS\CL04.M  
 ABI Address: 1 System: 3 Mode: 1  
 Analyst : EL Column:

Calibration Volume Dilution Points Rate Start Stop Area Reject  
 External 1 1 1550 5Hz 0.00 6.50 200

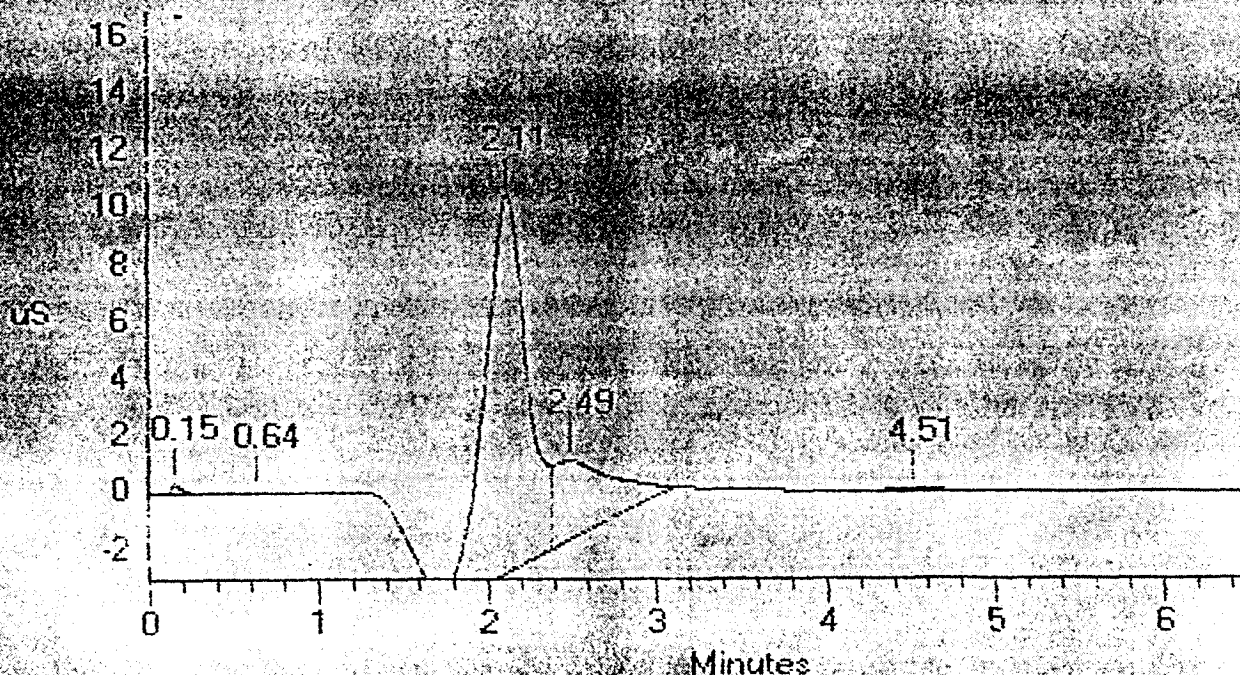
\*\*\*\*\* Component Report : Components found \*\*\*\*\*

PK Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
5	4.51	CL04	0.100	67	1469	1	-1.7
Totals			0.100	67	1469		

\*\*\*\*\* Peak Report: Unknown Peaks \*\*\*\*\*

PK Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.15		0.000	342	1180	1	
2	0.64		0.000	50	325	1	
3	2.11		0.000	15230	233797	2	
4	2.49		0.000	2754	65156	2	
Totals			0.000	16420	300959		

File: 01230011.D06 Sample: AUTOCALIB



Sample Name: 33986 FOAM RUBBER  
 Data File : C:\DX\DATA\ANIONS\01230011.D16  
 Method : C:\DX\METHOD\CL04.met  
 ACI Address: 1 System: 1 Inject#: 16  
 Analyst : EC Column:

Date 01/23/1997 15:43:09

Detector: CDM-1

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	444	1950	5Hz	0.00	6.50		200

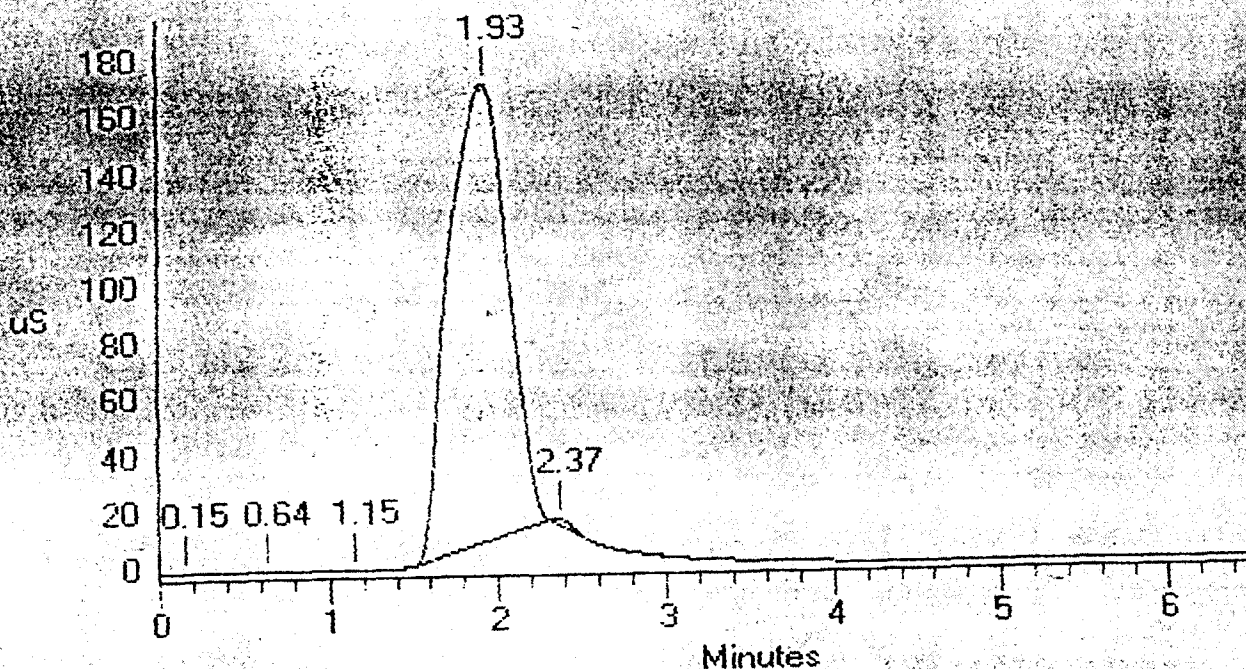
\*\*\*\*\* Component Report: Components Found \*\*\*\*\*

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
Totals			0.000	0	0		

\*\*\*\*\* Peak Report: Unknown Peaks \*\*\*\*\*

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.15		0.000	156	875	1	
2	0.64		0.000	50	384	1	
3	1.15		0.000	181	1501	1	
4	1.93		0.000	162529	3951655	1	
5	2.37		0.000	1582	13657	1	
Totals			0.000	164497	3968472		

File: 01230011.D16 Sample: 33986 FOAM RUBBER



Sample Name: 33986 FL RUBBER MS  
 Data File : C:\DX\DATA\ANIONS\01230011.D17  
 Method : C:\DX\METHOD\CL04.met  
 ACI Address: 1 System: 1 Inject#: 17 Detector: CDM-1  
 Analyst : EC Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	417	1950	5Hz	0.00	6.50		200

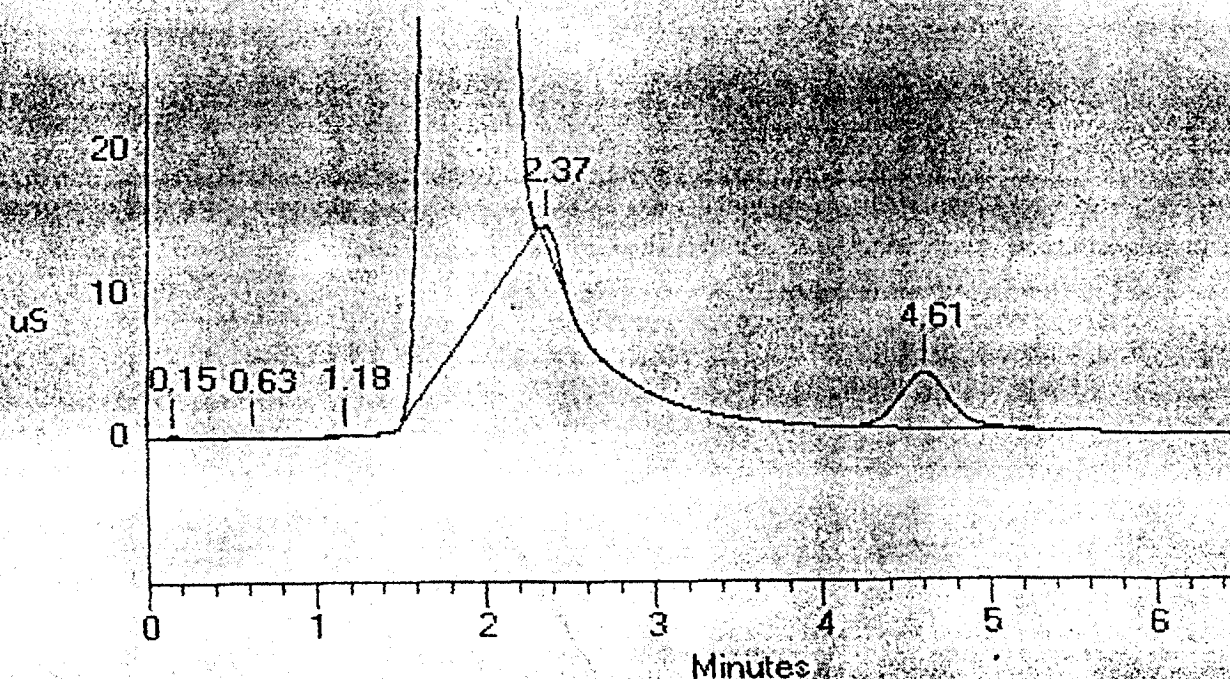
\*\*\*\*\* Component Report: Components Found \*\*\*\*\*

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	RI Code	%Delta
6	4.61	CL04	1939.986	3890	84541	1	2.22
Totals			1939.986	3890	84541		

\*\*\*\*\* Peak Report: Unknown Peaks \*\*\*\*\*

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	RI Code	%Delta
1	0.15		0.000	115	445	1	
2	0.63		0.000	63	435	1	
3	1.18		0.000	73	745	1	
4	1.92		0.000	144480	3392034	1	
5	2.37		0.000	1440	11965	1	
Totals			0.000	146170	3405628		

File: 01230011.D17 Sample: 33986 FOAM RUBBER MS



Sample Name: 5 PPM STD Date: 01/23/1997 16:01:46  
 Data File : C:\DX\DATA\ANIONS\01230011.D18  
 Method : C:\DX\METHOD\CL04.met  
 ACI Address: 1 System: 1 Inject#: 18 Detector: CDM-1  
 Analyst : EC Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	1950	5Hz	0.00	6.50		200

\*\*\*\*\* Component Report: Components Found \*\*\*\*\*

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delt
4	4.55	CL04	4.983	3947	90902	1	0.8
Totals			4.983	3947	90902		

\*\*\*\*\* Peak Report: Unknown Peaks \*\*\*\*\*

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delt
1	0.15		0.000	157	971	1	
2	0.64		0.000	54	401	1	
3	2.09		0.000	13998	213074	1	
Totals			0.000	14210	214446		

File: 01230011.D18 Sample: 5 PPM STD

